

1 STATE OF TENNESSEE  
2 DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT  
3 BOARD OF BOILER RULES  
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8 QUARTERLY MEETING OF THE  
9 STATE OF TENNESSEE  
10 BOARD OF BOILER RULES

11 August 8, 2018  
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16 ORIGINAL  
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23 CASSANDRA M. BEILING, LCR# 371  
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Page 2

1 APPEARANCES:  
2 David W. Baughman, Acting Chairman  
Owner/User Representative  
3 Allied Boiler & Supply, Inc.  
4006 River Lane  
4 Milton, Tennessee 37118  
5  
6 Harold F. Bowers  
Insurance Representative  
Centerville, Tennessee  
7  
8 Jeffrey Henry  
Boiler Manufacturer Representative  
9 Chattanooga, Tennessee  
10  
11 S. Keith Hargrove  
Mechanical Engineer Representative  
Goodlettsville, Tennessee  
12  
13 Sam Chapman, Chief Boiler Inspector  
14  
15 Chris O'Guin, Deputy Boiler Inspector  
16  
17 Kim Y. Jefferson, Esq.  
Assistant Commissioner, State of Tennessee  
18  
19 Daniel Bailey, Esq.  
Legal Counsel, State of Tennessee  
20  
21 Lynn Kirby  
Board Secretary, State of Tennessee  
22  
23  
24  
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Page 4

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2 ACTING CHAIRMAN BAUGHMAN: I've got  
3 right at 9:00, so we'll call the board of boiler  
4 rules meeting to be open.  
5 I would like to welcome all of you.  
6 We're very thankful that each and every one of you  
7 is here, that you made it safely here today.  
8 Driving through Nashville traffic can always be an  
9 interesting proposition. But we're thankful that  
10 each one of you is here this morning.  
11 Just as a matter of announcements,  
12 that should there be an event of an emergency or a  
13 disaster, that security personnel will take  
14 attendees to a safe place in the building or  
15 direct them to exit the building on the Rosa Parks  
16 side. So we're not anticipating anything, but  
17 just as a matter of protocol, to address that.  
18 So as a matter of introduction, we  
19 have a new member sitting on our board of boiler  
20 rules board. And so, Mr. Henry, will you  
21 introduce yourself, please.  
22 MR. HENRY: My name is Jeff Henry. I'm  
23 with a company called ATC-CES in Chattanooga,  
24 Tennessee. It's a pleasure to be here. Thank  
25 you.

Page 3

I N D E X

1 18-05 Cargill, Inc. PAGE 12  
2  
3 18-06 Sofix 29  
4  
5 18-07 Occidental Chemical Corporation (OxyChem) 41  
6  
7 A G E N D A  
8 I. Call Meeting to Order  
9 II. Introductions and Announcements  
10 III. Adoption of the Agenda  
11 IV. Approval of the March 21, 2018 Meeting  
12 Minutes  
13  
14 V. Chief Boiler Inspector's Report  
15  
16 VI. Variance Report  
17  
18 VII. Old Business - None  
19  
20 VIII. New Business  
21 18-05 Cargill, Inc.  
22 18-06 Sofix  
23 18-07 Occidental Chemical Corporation  
24 (OxyChem)  
25  
26 IX. Open Discussion Items  
27 Status of the 2018 Tennessee Boiler  
28 Safety Conference  
29  
30 X. Rule Cases & Interpretations - None  
31  
32 XI. The next Board of Boiler Rules Meeting is  
33 scheduled for 9:00 a.m. (CT), Wednesday,  
34 September 19, 2018, at the Department of  
35 Labor & Workforce Development office  
36 building located at 220 French Landing  
37 Drive, Nashville, Tennessee.  
38  
39 XII. Adjournment.  
40  
41 \*\* Reporter's Note: All names are spelled  
42 phonetically unless otherwise provided to the  
43 Reporter by the parties.  
44  
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Page 5

1 ACTING CHAIRMAN BAUGHMAN: Well, we're  
2 glad to have Mr. Henry on the board. We're glad  
3 for your service you bring to the state. It's one  
4 of the most important boards, I feel like, in the  
5 state of Tennessee, from a safety standpoint that  
6 the public will never know about. And that's a  
7 good thing. So safety is the number one concern  
8 of what it is that we work with, and we're  
9 thankful that you're serving in that capacity,  
10 Mr. Henry.  
11 MR. HENRY: Thank you very much.  
12 ACTING CHAIRMAN BAUGHMAN: And so as a  
13 matter of introductions, then, we'll start going  
14 around the table here, and then continue on  
15 through with those in attendance. So we'll start  
16 here with yourself.  
17 THE REPORTER: Cassandra Beiling, Stone  
18 & George Court Reporting.  
19 MS. KIRBY: Lynn Kirby, board secretary.  
20 MR. O'GUIN: Chris O'Guin, deputy boiler  
21 inspector.  
22 MR. CHAPMAN: Sam Chapman, chief  
23 inspector.  
24 MR. HARGROVE: Keith Hargrove, board  
25 member.

<p style="text-align: right;">Page 6</p> <p>1           ACTING CHAIRMAN BAUGHMAN: Dave 2 Baughman, board member. 3           MR. BOWERS: Harold Bowers, board 4 member. 5           MR. HENRY: Jeff Henry, board member. 6           MS. JEFFERSON: Kim Jefferson, assistant 7 commissioner. 8           MR. BAILEY: Dan Bailey, legal counsel. 9           MR. WILSDORF: I'm Don Wilsdorf, 10 operations manager for Occidental Chemical in 11 New Johnsonville, Tennessee. 12           MR. NEVILLE: James Neville, Neville 13 Engineering. 14           MR. WHITLEY: Bruce Whitley, Occidental 15 Chemical. I'm the subject matter coordinator. 16           MR. TOTH: Marty Toth, ECS Consulting 17 and the Boisco Training Group. 18           MR. SCHOENFELDER: Jameson Schoenfelder 19 with Cargill Memphis, utility supervisor. 20           MR. ANDERSON: Cody Anderson, engineer 21 with Cargill Memphis. 22           MR. RYANTON: Mike Ryanton, state boiler 23 inspector. 24           MR. PARHAM: Dave Parham, senior risk 25 control consultant, Travelers.</p>	<p style="text-align: right;">Page 7</p> <p>1           MR. PETERS: Danny Peters, Tennessee 2 state boiler inspector, Knoxville office. 3           MR. SHREINER: Justin Shreiner, 4 Intellihot. 5           MR. HIGGINS: Kelly Higgins, Ferguson 6 Enterprises. 7           MR. O'CONNOR: Michael O'Connor, 8 qualifying agent for Mo's Mechanical. 9           MS. RHONE: Deborah Rhone, boiler office 10 supervisor. 11           MS. PAIGE: Ebony Paige, ASA3, WRC. 12           MR. RAWLS: Bruce Rawls, Industrial 13 Boiler out of Chattanooga. 14           MR. REYNOLDS: Sean Reynolds, Sofix, 15 LLC, EHS manager. 16           MR. FRADY: Anthony Frady, technical 17 service manager with Sofix, LLC out of 18 Chattanooga, Tennessee. 19           MR. CAHILL: Paul Cahill, president, 20 Sofix. 21           MR. PAULUCCE: Anthony Paulucce, plant 22 manager, Sofix. 23           MS. XIXIS: Stamatia Xixis, department 24 liaison. 25           ACTING CHAIRMAN BAUGHMAN: Well, thank</p>
<p style="text-align: right;">Page 8</p> <p>1 you for the introductions. It's a pretty diverse 2 group of people that we've got here this morning, 3 so there will be some good discussions, I'm sure. 4           So the first thing that we move to is 5 the adoption of the agenda. So you have the 6 agenda and there are extra agendas in the back, if 7 you don't have one. But we need an adoption of 8 the agenda, so is there a motion to adopt the 9 agenda? 10           MR. BOWERS: Motion to adopt. 11           MR. HARGROVE: Second. 12           ACTING CHAIRMAN BAUGHMAN: All in favor? 13           (Affirmative response.) 14           ACTING CHAIRMAN BAUGHMAN: Opposed? 15           (No verbal response.) 16           ACTING CHAIRMAN BAUGHMAN: We have an 17 adoption of the agenda. 18           So next on the agenda itself is the 19 approval of the March 21st board -- board meeting 20 minutes. First of all, is there a motion to 21 accept these minutes from the March 21st meeting? 22           MR. HARGROVE: Keith Hargrove, a motion 23 to accept the minutes as presented. 24           ACTING CHAIRMAN BAUGHMAN: Is there any 25 discussion?</p>	<p style="text-align: right;">Page 9</p> <p>1           (No verbal response.) 2           ACTING CHAIRMAN BAUGHMAN: Okay. If 3 not, then motion is made to approve the minutes of 4 the March 21st, 2018 meeting. So all in favor of 5 that approval? 6           (Affirmative response.) 7           ACTING CHAIRMAN BAUGHMAN: Any opposed? 8           (No verbal response.) 9           ACTING CHAIRMAN BAUGHMAN: All right. 10 We have an approval of the March 21st, 2018 11 minutes. 12           Next on the agenda is the chief boiler 13 inspector's report. Chief Chapman? 14           MR. CHAPMAN: Yes, thank you. The 15 number of inspections from the state inspector is 16 3,402 inspections; the number of inspections from 17 the insurance company is 6,110, giving us a total 18 of 9,512 inspections. 19           The total number of delinquent 20 inspections is -- state inspectors -- is 1,191; 21 for the insurance company, it's 335, giving us a 22 total of 1,526 delinquent inspections. 23           Number of code violations found was 24 15. We have six that's uncorrected. 25           The variance report will be given by</p>

<p style="text-align: right;">Page 10</p> <p>1 Chris O'Guin.</p> <p>2           ACTING CHAIRMAN BAUGHMAN: Thank you for</p> <p>3 the report, Chief Chapman, and thank you so much</p> <p>4 for the work that you do.</p> <p>5           The variance report, Assistant Chief</p> <p>6 O'Guin?</p> <p>7           MR. O'GUIN: Deputy boiler inspector.</p> <p>8           ACTING CHAIRMAN BAUGHMAN: Deputy Boiler</p> <p>9 Inspector, your report, please.</p> <p>10          MR. O'GUIN: As of to date, we've got 10</p> <p>11 variances that require a follow-up inspection, 54</p> <p>12 that have been verified and approved, 8 that</p> <p>13 require an audit, and 44 that no longer require a</p> <p>14 variance.</p> <p>15          This quarter we completed five</p> <p>16 variance audits with five approved; that being</p> <p>17 BASF had two, and Vi-Jon had a follow-up visit and</p> <p>18 was approved, and Jack Daniel's was approved with</p> <p>19 two variances.</p> <p>20          ACTING CHAIRMAN BAUGHMAN: Any questions</p> <p>21 on those reports?</p> <p>22          MR. BOWERS: I have a question.</p> <p>23          ACTING CHAIRMAN BAUGHMAN: Yes,</p> <p>24 Mr. Bowers?</p> <p>25          MR. BOWERS: The 54, is that -- you said</p>	<p style="text-align: right;">Page 11</p> <p>1 54 variances approved. Is that physical year</p> <p>2 2018?</p> <p>3           MR. O'GUIN: That's 54 active as of</p> <p>4 June.</p> <p>5           MR. BOWERS: Active variances. Okay.</p> <p>6 And how many have been approved this year? How</p> <p>7 many variances have been approved?</p> <p>8           MR. CHAPMAN: We'll have to get back to</p> <p>9 you with that total number.</p> <p>10          MR. BOWERS: Okay. But we have ten</p> <p>11 variances that --</p> <p>12          MR. CHAPMAN: Needs follow-up.</p> <p>13          MR. BOWERS: Needs follow-up. Okay.</p> <p>14          MR. O'GUIN: And that was as of June</p> <p>15 meeting.</p> <p>16          MR. BOWERS: Okay. Thank you.</p> <p>17          ACTING CHAIRMAN BAUGHMAN: Any other</p> <p>18 questions or discussion on the chief and Deputy</p> <p>19 Inspector O'Guin's report?</p> <p>20                 (No verbal response.)</p> <p>21          ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>22 Thank you both, very much, for that report.</p> <p>23          Next on the agenda is old business.</p> <p>24 There being none, we'll move on to the next on the</p> <p>25 agenda, being new business.</p>
<p style="text-align: right;">Page 12</p> <p>1           As we go through these items, before</p> <p>2 we discuss each item, I'll ask to see if there's a</p> <p>3 conflict of interest from anyone here on the board</p> <p>4 itself.</p> <p>5           So, first on the agenda is</p> <p>6 Number 18-05 Cargill. We have representatives</p> <p>7 from Cargill. Cargill is requesting a variance</p> <p>8 for two vessels to operate under the requirements</p> <p>9 of the Chapter 0800-03-03-.08(11).</p> <p>10          So, I would ask, first of all, is</p> <p>11 there any conflicts of interest?</p> <p>12                 (No verbal response.)</p> <p>13          ACTING CHAIRMAN BAUGHMAN: Being none</p> <p>14 declared, if you'll introduce yourself and...</p> <p>15          MR. SCHOENFELDER: Hello. My name is</p> <p>16 Jameson Schoenfelder. I work at Cargill Memphis,</p> <p>17 Tennessee. I've been there for almost seven years</p> <p>18 now. I'm actively the utilities and oil refinery</p> <p>19 supervisor for our facility.</p> <p>20          MR. ANDERSON: Hi. I'm Cody Anderson,</p> <p>21 also with Cargill Memphis. I'm project engineer.</p> <p>22 I've been there about a year now. I'm the</p> <p>23 individual that installed the boilers.</p> <p>24          ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>25 So I would ask that there be a motion to discuss</p>	<p style="text-align: right;">Page 13</p> <p>1 this line item.</p> <p>2           MR. HENRY: So moved.</p> <p>3           MR. BOWERS: Second.</p> <p>4           ACTING CHAIRMAN BAUGHMAN: So all in</p> <p>5 favor?</p> <p>6                 (Affirmative response.)</p> <p>7          ACTING CHAIRMAN BAUGHMAN: Opposed?</p> <p>8                 (No verbal response.)</p> <p>9          ACTING CHAIRMAN BAUGHMAN: So we'll</p> <p>10 discuss the request.</p> <p>11          MR. SCHOENFELDER: So just, I guess,</p> <p>12 high-level overview? Is that what you would like</p> <p>13 right now?</p> <p>14          ACTING CHAIRMAN BAUGHMAN: Yes.</p> <p>15          MR. SCHOENFELDER: So we have two</p> <p>16 high-pressure boilers that we are operating that</p> <p>17 we are requesting a variance for. One would be</p> <p>18 kind of your standard package water-tube boiler</p> <p>19 with a general operating pressure of 200 psig. A</p> <p>20 second one is kind of a specialty boiler. It is a</p> <p>21 package water-tube boiler as well, but it does not</p> <p>22 have a water system associated with it because it</p> <p>23 is a closed-loop system. We commonly refer to it</p> <p>24 as a high-pressure steam generator, and it</p> <p>25 actually just supplies steam to one piece of</p>

<p style="text-align: right;">Page 14</p> <p>1 equipment. That condensate from that piece of 2 equipment goes directly back to the boiler. There 3 is no water addition, no water monitoring or 4 anything from that with that boiler. 5 MR. BOWERS: I had a question before you 6 go too far. 7 MR. SCHOENFELDER: Yep. 8 MR. BOWERS: Your data sheet that you 9 submitted, the first boiler you talked about, is 10 that the Nebraska boiler? 11 MR. SCHOENFELDER: Nebraska boiler, 12 uh-huh. 13 MR. BOWERS: And the second boiler, is 14 that the Performance heating boiler? 15 MR. SCHOENFELDER: Correct, it is. 16 MR. BOWERS: Now, in the submittal you 17 sent to the board, there is no Tennessee number. 18 Have they been registered with the State now? 19 MR. SCHOENFELDER: Yes, they have. 20 MR. BOWERS: Okay. 21 MR. SCHOENFELDER: Do you need that 22 right now? 23 MR. BOWERS: Well, we'll get to that. 24 MR. SCHOENFELDER: Okay. 25 MR. BOWERS: Okay. You can go ahead,</p>	<p style="text-align: right;">Page 15</p> <p>1 please. 2 MR. SCHOENFELDER: So that's a basic 3 description of the two boilers. And then as far 4 as our operation system and monitoring system, you 5 know, basic -- we have a DCS system, distributed 6 control system. We use DeltaV for that system as 7 the primary monitoring system for these boilers. 8 And with the Nebraska boiler, it has a 9 separate BMS system that is based from DeltaV. We 10 refer to it as an SIS system. The high-pressure 11 steam generator, the performance heating boiler, 12 it uses a Honeywell controller as its BMS system. 13 And then from a remote operating perspective, you 14 know, with Shelby County, we have the -- I guess 15 we have the county jurisdiction that requires a 16 licensed boiler operator, so we actually have 24/7 17 staffing of licensed -- first-class licensed 18 boiler operators per Shelby County code. 19 So the licensed boiler operator is the 20 designated individual as the remote operator. 21 They would generally be at the control system, and 22 any alarms or any issues, restarts or anything 23 like that would then be handled by them. 24 If, for some reason, they were out in 25 the field doing other activities, the oil refinery</p>
<p style="text-align: right;">Page 16</p> <p>1 operator would be the backup to them in the 2 control room and have access to DeltaV and be able 3 to handle any emergency-stop situations. 4 With that, you know, we've got the 5 emergency stops, the buttons located in the field, 6 at the boilers themselves, and at the remote 7 monitoring stations in the oil refinery control 8 room. 9 ACTING CHAIRMAN BAUGHMAN: Very good. 10 Question, Mr. Bowers? 11 MR. BOWERS: In the proposal, it talked 12 about some coal boilers. 13 MR. SCHOENFELDER: Yes. 14 MR. BOWERS: Have they all been taken 15 out now? 16 MR. SCHOENFELDER: They're idle. 17 MR. BOWERS: Okay. 18 MR. SCHOENFELDER: Correct. And -- but 19 they're not being renewed in our environmental 20 permits. They will be demoed at some period of 21 time. I don't know what the timeframe is. 22 MR. BOWERS: "Idled" as disconnected? 23 MR. SCHOENFELDER: Correct. 24 MR. BOWERS: Okay. 25 MR. SCHOENFELDER: They no longer have</p>	<p style="text-align: right;">Page 17</p> <p>1 power to any of their control systems. We have 2 not burned coal since 2015. But they were being 3 burned with natural gas up until June here. I 4 think it referenced that June was the expected 5 timeline to start these two new boilers that we've 6 referenced. They had been started, so the other 7 boilers are no longer in service, with no plans 8 from our environmental monitoring; so if, like, 9 they have environmental permits, they are being 10 removed from that. 11 MR. BOWERS: Okay. Thank you. 12 MR. HARGROVE: Keith Hargrove. Can you 13 describe the security access protocol for the BMS 14 system and, also, what is the means of 15 communication between the personnel at the site. 16 MR. SCHOENFELDER: So our BMS system, as 17 far as making changes to the BMS system? Or are 18 you saying just as far as accessing a shut-down or 19 a start-up sequence -- 20 MR. HARGROVE: Yes. Yes. 21 MR. SCHOENFELDER: Okay. So 22 predominantly, that can only be done from DeltaV. 23 And, you know, we have DeltaV consoles throughout 24 our entire facility in several different 25 departments, but only certain log-in rights have</p>

<p style="text-align: right;">Page 18</p> <p>1 got access to various areas. So, for example,  2 with the boiler equipment, only the boiler  3 operator and the boiler supervisor log-ins can  4 actually log in to any of those consoles to  5 actually access and initiate any kind of start,  6 stop, silence an alarm, something like that, from  7 the DeltaV system.</p> <p>8 MR. HARGROVE: Are those the same access  9 codes that both individuals have, or are they  10 separate?</p> <p>11 MR. SCHOENFELDER: They're separate.</p> <p>12 MR. HARGROVE: Okay.</p> <p>13 MR. SCHOENFELDER: So then you could  14 identify -- you know, the supervisor may have  15 slightly different rights, as far as changing some  16 parameters, versus our standard operator log-in.  17 And that allows our control system to keep, you  18 know, a log at -- every command gets logged in the  19 control system so that we can see the boiler  20 supervisor log-in made the change or the boiler  21 operator log-in made the change.</p> <p>22 MR. HARGROVE: Okay. And communication  23 between the personnel operators?</p> <p>24 MR. SCHOENFELDER: Yes. So with our  25 standard operating, we run three eight-hour</p>	<p style="text-align: right;">Page 19</p> <p>1 shifts, so we're staffed around the clock 24/7,  2 365. And then during shift exchanges, which  3 standardly happen at 7:00 a.m., 3:00 p.m., and  4 11:00 p.m., the shift leaving and the shift  5 oncoming, the two operators that have the shift  6 exchange discuss any items, any potential issues  7 they are having, whether it might be, you know,  8 say, a water quality-type issue that they're  9 working on or any kind of issue from that  10 perspective.</p> <p>11 And then with the DeltaV system, as  12 far as with the boiler log-in versus the operator  13 log-in, versus the supervisor log-in, it's got  14 access rights, and certain things would be locked  15 down. Like, you may not be able to change certain  16 set points like the desired water level for  17 running the boiler at. The operator may not be  18 able to change that. The supervisor might be.</p> <p>19 MR. HARGROVE: And to the installation  20 engineer, what current role do you provide now to  21 the system?</p> <p>22 MR. ANDERSON: Currently, I'm just  23 supporting Jameson and the operators in day-to-day  24 questions on the install as they're learning their  25 way through the system, getting more familiar with</p>
<p style="text-align: right;">Page 20</p> <p>1 it. I do not work on the boiler anymore, as I've  2 moved on to other projects since start-up.</p> <p>3 MR. HARGROVE: Have you been engaged in  4 any of the training and education of the  5 operators?</p> <p>6 MR. ANDERSON: I have not, personally,  7 been a part of that.</p> <p>8 MR. HARGROVE: I'm done, Mr. Chairman.</p> <p>9 ACTING CHAIRMAN BAUGHMAN: Yes,  10 Mr. Bowers?</p> <p>11 MR. BOWERS: The question I have is, on  12 this control, is it hardwired or wireless?</p> <p>13 MR. SCHOENFELDER: Everything is  14 hardwired. There's no wireless communication on  15 any of our control systems on our site.</p> <p>16 MR. BOWERS: Okay.</p> <p>17 MR. SCHOENFELDER: We do have wireless  18 for, like, environmental monitoring, just  19 communicate the passing information, but we don't  20 allow control wirelessly within Cargill.</p> <p>21 MR. BOWERS: So I noticed in your  22 submittal -- and maybe I'm wrong, but isn't there  23 supposed to be an emergency sheet in here,  24 procedures, that's supposed to be colored, in that  25 proposal? Isn't that correct?</p>	<p style="text-align: right;">Page 21</p> <p>1 MR. CHAPMAN: It's usually a colored  2 sheet or a tab.</p> <p>3 ACTING CHAIRMAN BAUGHMAN: It's under  4 Number 40 on the checklist.</p> <p>5 MR. BOWERS: Yes. You're supposed to  6 have an emergency procedure sheet in the proposal  7 that's a different color, or a tab, so it's easy  8 to get to in case of emergency.</p> <p>9 MR. SCHOENFELDER: Okay. So I think we  10 referenced the emergency procedure, so you're  11 saying we just need to update the document and  12 make it a different color?</p> <p>13 ACTING CHAIRMAN BAUGHMAN: I'll clarify  14 that just a little bit. Under your boiler  15 variance checklist, Item Number 40, it says, "Is  16 the emergency procedure remote monitoring station  17 a highlighted section that can be quickly turned  18 to at the onset of an alarm condition?"</p> <p>19 Well -- and it references pages 6 and  20 7. And if you go and just take a look at page 6  21 and 7, there's not a highlighted section that is  22 able to be quickly referenced. And that needs to  23 be at the remote station. That's typically a  24 placard that is highlighted, color-oriented,  25 maybe, yellow or red placard that's easily</p>

<p style="text-align: right;">Page 22</p> <p>1 accessible that needs to be at the remote station.  2 And that's not in here.  3 MR. SCHOENFELDER: Okay.  4 MR. BOWERS: In the City of Memphis, you  5 stated that the operators have to have an operator  6 license, correct?  7 MR. SCHOENFELDER: That's Shelby County.  8 MR. BOWERS: Okay. Is there any  9 restrictions -- you know, you're going for a  10 variance with the State of Tennessee. Is there  11 any restrictions as far as Shelby County on the  12 operator --  13 MR. SCHOENFELDER: Yes. So the  14 restriction with that license is that the boiler  15 operator has to have the ability to look at the  16 boiler on a frequency. They don't have to put  17 physical eyes on the device, but from the control  18 system, they can look at it at that frequency.  19 And they just have to have -- they have to be on  20 site. So they could be on the site doing another  21 activity, say, unloading a rail car. They don't  22 actually physically have to be watching the  23 control system 100 percent of the time.  24 MR. BOWERS: And you will have one of  25 those operators 24/7.</p>	<p style="text-align: right;">Page 23</p> <p>1 MR. SCHOENFELDER: Correct. A licensed  2 boiler operator is required 24/7, if the boiler is  3 running.  4 MR. BOWERS: Okay. Thank you.  5 ACTING CHAIRMAN BAUGHMAN: Other  6 questions?  7 (No verbal response.)  8 ACTING CHAIRMAN BAUGHMAN: I have one.  9 And that's just asking, there's no cross-  10 connection between the steam generator and the  11 other boiler steam header system.  12 MR. SCHOENFELDER: Right.  13 ACTING CHAIRMAN BAUGHMAN: There's no  14 tie-ins whatsoever. They're totally separate.  15 MR. SCHOENFELDER: They are.  16 ACTING CHAIRMAN BAUGHMAN: Is there any  17 monitoring that's done of the DA?  18 MR. SCHOENFELDER: As far as, say,  19 pressure or water quality or...  20 ACTING CHAIRMAN BAUGHMAN: No. Just  21 tied in with this DCS system.  22 MR. SCHOENFELDER: Yep. We have -- the  23 DA only feeds, obviously, the Nebraska boiler,  24 because the other boiler doesn't have a  25 continuously running feed water system. But with</p>
<p style="text-align: right;">Page 24</p> <p>1 that, the DeltaV DCS system does extensive  2 monitoring, so that obviously feeds their feed  3 water pumps, high pressure, multi-stage pumps,  4 which are on BFD. So if that level were to run  5 low, the pumps would shut down. And we actually  6 have B -- not BMS trips but BPCS trips, associated  7 with the boiler with the feed water shutting off.  8 That way we don't put extra wear and tear on our,  9 say, low-water cutoffs, right? We don't want to  10 force a low-water cutoff. We'll shut it down for  11 loss of feed flow before that.  12 ACTING CHAIRMAN BAUGHMAN: Excellent.  13 Was the DA itemized under our equipment list, by  14 chance? I didn't notice it offhand.  15 MR. SCHOENFELDER: As far as any  16 detailed specifications in this document, no, I  17 don't believe so.  18 ACTING CHAIRMAN BAUGHMAN: Okay. It  19 doesn't fall under the variance. I just sense  20 it's an integral part of the system itself. I  21 always like to take a look at it just to kind of  22 look at the parameters on it.  23 Has there been any issues at all on  24 the Nebraska boiler?  25 MR. SCHOENFELDER: No. I mean, so we</p>	<p style="text-align: right;">Page 25</p> <p>1 started it up in June, late June, the 20th or so  2 of June.  3 ACTING CHAIRMAN BAUGHMAN: Of this year?  4 MR. SCHOENFELDER: Correct. And since  5 then, it has run really, really well.  6 ACTING CHAIRMAN BAUGHMAN: Where did the  7 boiler come from, previously?  8 MR. SCHOENFELDER: It was previously in  9 a rental service. I don't know who was the --  10 MR. ANDERSON: With Nationwide Boiler  11 out of Fremont, California.  12 ACTING CHAIRMAN BAUGHMAN: Okay. So  13 this was a used boiler purchased from Nationwide  14 Boiler.  15 MR. ANDERSON: That's correct.  16 ACTING CHAIRMAN BAUGHMAN: I take it all  17 the proper second-hand boiler information has been  18 presented and approved and so forth.  19 MR. SCHOENFELDER: Yes.  20 ACTING CHAIRMAN BAUGHMAN: Very good.  21 All right. Any other questions?  22 MR. HENRY: (Indicating.)  23 ACTING CHAIRMAN BAUGHMAN: Yes, sir?  24 MR. HENRY: Mr. Chairman, I want to,  25 first of all, apologize to the other members. I</p>

Page 26

1 haven't had an opportunity to review all the  
 2 information. Could you briefly explain to me what  
 3 the nature of the variance is that's being  
 4 requested?  
 5           ACTING CHAIRMAN BAUGHMAN: Yes. So  
 6 under the operations, instead of the boiler being  
 7 operated under the 20-minute rule, they're asking  
 8 for a variance to that. So within that, then the  
 9 variance would have them to where they are looking  
 10 at the boiler, making physical checks no longer  
 11 than once every four hours, logging those checks  
 12 and so forth.  
 13           MR. HENRY: Okay. Thank you very much.  
 14           ACTING CHAIRMAN BAUGHMAN: You're  
 15 welcome.  
 16           Yes, sir, Mr. Toth.  
 17           MR. TOTH: Does this steam generator  
 18 that they refer to not fall under bc9206, which is  
 19 a board case for boilers of that nature not to be  
 20 required to fall under the 20-minute rule?  
 21           ACTING CHAIRMAN BAUGHMAN: Being a steam  
 22 generator like a Clayton or --  
 23           MR. TOTH: Like a Clayton.  
 24           ACTING CHAIRMAN BAUGHMAN: I would have  
 25 to defer that question, Mr. Toth.

Page 28

1 have a fixed water level.  
 2           ACTING CHAIRMAN BAUGHMAN: I know that  
 3 some of the units, the design actually goes from  
 4 the coils up to a separate steam section, and then  
 5 from there, it goes on out, just so the quality of  
 6 steam is better and so forth on it. So every  
 7 design is different. I'm not familiar with the  
 8 performance heating design, so, henceforth, the  
 9 questions. But we will defer that particular  
 10 question back to further review through  
 11 Mr. Chapman.  
 12           Any other questions?  
 13           (No verbal response.)  
 14           ACTING CHAIRMAN BAUGHMAN: All right.  
 15 Being that there are none, is there a motion to  
 16 accept the request for a variance for these two  
 17 boilers?  
 18           MR. BOWERS: A motion to accept.  
 19           ACTING CHAIRMAN BAUGHMAN: Is there a  
 20 second?  
 21           MR. HARGROVE: Keith Hargrove. Second.  
 22           ACTING CHAIRMAN BAUGHMAN: Okay. We  
 23 have a second.  
 24           MR. BAILEY: Mr. Chairman, is that a  
 25 motion to accept, pending they correct the placard

Page 27

1           MR. CHAPMAN: We would have to look into  
 2 it.  
 3           ACTING CHAIRMAN BAUGHMAN: Mr. Chapman  
 4 says we'd have to look into that.  
 5           So does this boiler, the performance  
 6 heating boiler, does it have a separate steam  
 7 section to where being water goes in one end of  
 8 the boiler and steam comes out the other -- it's  
 9 considered a generator, but does it have a  
 10 separate steam separator, a separate steam section  
 11 that's external of the boiler itself?  
 12           MR. SCHOENFELDER: Well, I mean, so the  
 13 steam that comes out of the boiler goes directly  
 14 to this one piece of equipment that we have, and  
 15 as the condensate side of that piece of equipment,  
 16 that water returns directly to the water side of  
 17 this boiler.  
 18           ACTING CHAIRMAN BAUGHMAN: Very good.  
 19           Mr. Toth?  
 20           MR. TOTH: Thank you, Mr. Chairman.  
 21 Again, those type of units, those designs don't  
 22 have a fixed water level, as you would in a  
 23 standard water-tube boiler or an RF2 boiler, so,  
 24 therefore, that's -- the steam is within the  
 25 boiler. As it leaves the boiler, it just does not

Page 29

1 and -- I think that was the only thing.  
 2           ACTING CHAIRMAN BAUGHMAN: Yes. Yes,  
 3 sir, Mr. Bailey. Thank you very much.  
 4           So it's contingent upon those changes  
 5 being made and upon an inspection from the State  
 6 to get the final approval. So being that, being  
 7 the corrected motion and we accept that corrected  
 8 motion, I'll call for a vote. All in favor?  
 9           (Affirmative response.)  
 10           ACTING CHAIRMAN BAUGHMAN: Those  
 11 opposed?  
 12           (No verbal response.)  
 13           ACTING CHAIRMAN BAUGHMAN: Very good.  
 14 You have a variance.  
 15           MR. SCHOENFELDER: Great. Thank you.  
 16           ACTING CHAIRMAN BAUGHMAN: Thank you for  
 17 your presentation.  
 18           Thank you--all very much, too, for your  
 19 input and questions. Marty, thank you.  
 20           All right. Moving on to Item  
 21 Number 18-06. Sofix, located in Chattanooga, is  
 22 requesting a variance to requirements for one  
 23 vessel to operate under the requirements of the  
 24 20-minute rule.  
 25           I'll call first for any conflicts

<p style="text-align: right;">Page 30</p> <p>1 before we carry forth.</p> <p>2 (No verbal response.)</p> <p>3 ACTING CHAIRMAN BAUGHMAN: Being that</p> <p>4 there's no conflicts, can you come up and</p> <p>5 introduce yourselves, please.</p> <p>6 MR. PAULUCCE: Good morning.</p> <p>7 ACTING CHAIRMAN BAUGHMAN: Good morning.</p> <p>8 MR. PAULUCCE: I'm Anthony Paulucce.</p> <p>9 I'm the plant manager at Sofix in Chattanooga.</p> <p>10 MR. REYNOLDS: I'm Sean Reynolds. I'm a</p> <p>11 PHS manager.</p> <p>12 ACTING CHAIRMAN BAUGHMAN: Very good,</p> <p>13 Anthony and Sean. So if you will, I would like to</p> <p>14 introduce the motion to discuss the request for</p> <p>15 the variance for this one vessel located at Sofix.</p> <p>16 Is there a motion to discuss?</p> <p>17 MR. BOWERS: Motion to discuss.</p> <p>18 MR. HARGROVE: Second.</p> <p>19 ACTING CHAIRMAN BAUGHMAN: Okay. All in</p> <p>20 favor say "aye."</p> <p>21 (Affirmative response.)</p> <p>22 ACTING CHAIRMAN BAUGHMAN: Opposed?</p> <p>23 (No verbal response.)</p> <p>24 ACTING CHAIRMAN BAUGHMAN: All right.</p> <p>25 So we have a motion to discuss.</p>	<p style="text-align: right;">Page 31</p> <p>1 If you will, please, both Anthony and</p> <p>2 Sean, if you'll make your presentation.</p> <p>3 MR. PAULUCCE: Okay. Yeah. We would</p> <p>4 like to submit our variance on a single</p> <p>5 high-pressure boiler. It's a Cleaver-Brooks. We</p> <p>6 operate at a nominal 100 psi. It's controlled by</p> <p>7 a Nexus Fireeye controller, integrated controller.</p> <p>8 And within our variance, we define two</p> <p>9 roles. We've got a boiler/operator, who is our</p> <p>10 maintenance technician. He's responsible for the</p> <p>11 maintenance of the boiler and, also, the alarm</p> <p>12 verification. And then we also define the remote</p> <p>13 system personnel, which is our security guards.</p> <p>14 And that station is monitored 24/7. The boiler</p> <p>15 runs on demand seven days a week.</p> <p>16 ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>17 Thank you.</p> <p>18 Questions for discussion?</p> <p>19 MR. HARGROVE: Mr. Chairman, just for</p> <p>20 clarity, this is a revised submittal. Could you,</p> <p>21 if you don't mind, explain that just for</p> <p>22 documentation of record?</p> <p>23 MR. PAULUCCE: Sure. Yeah. We did have</p> <p>24 a variance. And I don't remember the exact year</p> <p>25 that it went out of compliance, but we had -- we</p>
<p style="text-align: right;">Page 32</p> <p>1 made some changes to the controller, and we didn't</p> <p>2 submit that for approval. And we -- at the time</p> <p>3 we did it, we talked with the inspector, the</p> <p>4 boiler inspector who came out that year, and we</p> <p>5 were under the assumption that he was a state</p> <p>6 inspector. And he said everything was okay, so we</p> <p>7 were under the assumption that we did not have to</p> <p>8 resubmit. So in that case, we did not resubmit.</p> <p>9 When they came back to ask about the variance, it</p> <p>10 had been longer than three years, so you asked for</p> <p>11 a resubmittal.</p> <p>12 MR. HARGROVE: So my understanding, it's</p> <p>13 been three years since the original submission?</p> <p>14 MR. PAULUCCI: No. The original</p> <p>15 submission was at the time the plan was built,</p> <p>16 back in '92. So we had --</p> <p>17 MR. HARGROVE: I'm sorry. I didn't hear</p> <p>18 that. When was that?</p> <p>19 MR. PAULUCCI: The original was 1992.</p> <p>20 And we had a variance for -- up until 2012, I</p> <p>21 believe.</p> <p>22 MR. HARGROVE: Mr. Chairman, pardon my</p> <p>23 ignorance, but why wasn't a complete document</p> <p>24 versus a revised document submitted based on the</p> <p>25 timeline for --</p>	<p style="text-align: right;">Page 33</p> <p>1 ACTING CHAIRMAN BAUGHMAN: I'll defer</p> <p>2 that to the chief.</p> <p>3 MR. CHAPMAN: It should have been a new,</p> <p>4 because there was an equipment change, okay, and</p> <p>5 the time frame on that, because the controls on it</p> <p>6 was changed. That's equipment. And so he should</p> <p>7 have sent a whole new package, you know, instead</p> <p>8 of a revision.</p> <p>9 MR. HARGROVE: Thank, you, sir.</p> <p>10 ACTING CHAIRMAN BAUGHMAN: So do we need</p> <p>11 to consider this as a -- since it should be a</p> <p>12 new --</p> <p>13 MR. CHAPMAN: It should be a new.</p> <p>14 ACTING CHAIRMAN BAUGHMAN: And this --</p> <p>15 what we've got in our hands is a revision.</p> <p>16 MR. CHAPMAN: Right.</p> <p>17 ACTING CHAIRMAN BAUGHMAN: So being that</p> <p>18 as such, do we need to have further discussion, or</p> <p>19 do we need to have a request for a new variance</p> <p>20 submitted?</p> <p>21 MR. CHAPMAN: Yes.</p> <p>22 ACTING CHAIRMAN BAUGHMAN: "Yes"</p> <p>23 being...</p> <p>24 MR. CHAPMAN: Yes. It needs to be for a</p> <p>25 new.</p>

<p style="text-align: right;">Page 34</p> <p>1           ACTING CHAIRMAN BAUGHMAN: We need to 2 have a new variance submitted. So being that said 3 and done, what we've got in our hands here, as a 4 revision, then, cannot be considered for vote at 5 this time; is that correct. 6           MS. JEFFERSON: That's correct. 7           MR. PAULUCCI: This is our variance. 8 It's not a revised. This is our new variance. 9           MS. JEFFERSON: So, Chairman, are you 10 saying that the information is not complete? Is 11 that what you're saying? 12           MR. PAULUCCI: This is a brand-new 13 variance for us. 14           MR. HARGROVE: As a board member, my 15 interpretation is that this submittal is 16 incomplete. 17           ACTING CHAIRMAN BAUGHMAN: Well, on the 18 front page, it says "Revised." 19           MR. REYNOLDS: Oh, this is our internal 20 document control. 21           MR. PAULUCCI: That's our revision date. 22           MR. REYNOLDS: Yeah. This is the date 23 that is officially in our record system. 24           ACTING CHAIRMAN BAUGHMAN: Okay. 25           MR. REYNOLDS: Any document that Sofix</p>	<p style="text-align: right;">Page 35</p> <p>1 prints, we have Sofix up at the top, a revision 2 date, and then down below, we have our printed 3 date. That's all hard-coded into any of our 4 templates. For any document that we produce, 5 you're going to see Sofix on top with the date of 6 the actual revision. It's in our system under a 7 QA system, and then down below, we have a printed 8 date. This is the day we actually printed this 9 and put the package together. So this is not -- 10           MR. PAULUCCI: That's just part of our 11 header and footer system. 12           ACTING CHAIRMAN BAUGHMAN: In our 13 package, do we have the boiler variance checklist? 14           MR. PAULUCCE: I don't know if we 15 included the checklist or not. I know -- 16           MR. HARGROVE: We do not. 17           MR. PAULUCCE: Okay. We do not have the 18 checklist. 19           ACTING CHAIRMAN BAUGHMAN: And that is a 20 requirement for us to consider. So the checklist 21 is not available to go through at this time, for 22 us to identify and question and so forth. So the 23 document, at this point, from my consensus and -- 24 I don't know of the consensus of others, but 25 Mr. Hargrove -- this is an incomplete document at</p>
<p style="text-align: right;">Page 36</p> <p>1 this particular point in time. And so because of 2 that, I would refer back to counsel to know how to 3 proceed further. 4           MR. BAILEY: Well, if it's the board's 5 consensus that this is an incomplete document, 6 then I think the board needs to point out what's 7 incomplete about it and then -- and give them 8 instructions as to what they need to submit for 9 the next time they appear before the board. 10           ACTING CHAIRMAN BAUGHMAN: Very good. 11           First of all, is it a consensus of the 12 board that it is an incomplete document? 13           Mr. Henry? 14           MR. HENRY: Yes. 15           ACTING CHAIRMAN BAUGHMAN: Mr. Bowers? 16           MR. BOWERS: Yes. 17           ACTING CHAIRMAN BAUGHMAN: Mr. Hargrove? 18           MR. HARGROVE: Yes. 19           ACTING CHAIRMAN BAUGHMAN: So within 20 that, then, we need to identify what you need to 21 bring back to have this consideration. First of 22 all, the boiler variance checklist. 23           MR. BAILEY: Mr. Chairman, does the 24 checklist not cover everything that they need to 25 submit in submitting a new proposal?</p>	<p style="text-align: right;">Page 37</p> <p>1           ACTING CHAIRMAN BAUGHMAN: It does, sir. 2           MR. BAILEY: Okay. So basically, 3 that's -- you need to get that checklist, and you 4 need to follow that checklist. 5           MR. REYNOLDS: We followed the checklist 6 when we put this together. And it might have been 7 my bad on my part. I did not see where the 8 checklist had to be included in the document. 9 That might have been missed by me. But we 10 followed that checklist as we prepared this 11 document to make sure that we had the tabs and the 12 colored pages and everything that was required to 13 be submitted for it. 14           ACTING CHAIRMAN BAUGHMAN: Okay. Is the 15 proposal letter to the state of Tennessee included 16 in this also? 17           MR. REYNOLDS: (Indicating.) 18           ACTING CHAIRMAN BAUGHMAN: Very good. 19           I'm sorry. I just don't have it on -- 20           MR. REYNOLDS: It may have been a cover 21 letter to -- on the back, which it's probably a 22 cover letter that was attached to the top of it. 23 But I'd be happy to give you this one. 24           ACTING CHAIRMAN BAUGHMAN: Do you, by 25 chance, have a copy of the checklist with you?</p>

<p style="text-align: right;">Page 38</p> <p>1 MR. REYNOLDS: Not with me, no, sir.</p> <p>2 ACTING CHAIRMAN BAUGHMAN: Well, without</p> <p>3 that, we're not able to go through and review and</p> <p>4 pull back to your references, and so forth. So at</p> <p>5 this point in time, we don't have all the</p> <p>6 information that's available to be able to analyze</p> <p>7 to be able to vote on giving you a new variance.</p> <p>8 So I would ask that you resubmit and bring that</p> <p>9 back for --</p> <p>10 MS. JEFFERSON: September 19th's</p> <p>11 meeting. We could possibly place that on the</p> <p>12 agenda.</p> <p>13 MR. PAULUCCI: So is that the only thing</p> <p>14 that is missing, is the checklist?</p> <p>15 ACTING CHAIRMAN BAUGHMAN: Well, and so</p> <p>16 for you to go back through the checklist and to</p> <p>17 double check -- because the questions are going to</p> <p>18 be -- there's a training log that's in here.</p> <p>19 There is no -- even though it's an open log, we're</p> <p>20 going to be asking about training of the</p> <p>21 personnel, what types of training do they have;</p> <p>22 the Nexus controller, is it tied in through any</p> <p>23 communication systems; is that communication</p> <p>24 systems via -- whatever via mechanism it is, being</p> <p>25 web-based, hard-wired, so forth; we'll be looking</p>	<p style="text-align: right;">Page 39</p> <p>1 at the maintenance tech and the security personnel</p> <p>2 and the protocols and their availability to</p> <p>3 respond; if a safety security personnel is called</p> <p>4 to come into the boiler room, who takes his place,</p> <p>5 what type of training had the security personnel</p> <p>6 had; is there more than one maintenance tech</p> <p>7 available --</p> <p>8 MR. PAULUCCI: All that's in here.</p> <p>9 We're ready to answer all those questions.</p> <p>10 ACTING CHAIRMAN BAUGHMAN: Super. And</p> <p>11 those questions will be identified there at that</p> <p>12 next meeting. But there again, you don't have the</p> <p>13 checklist to refer to; we don't have the checklist</p> <p>14 to refer to.</p> <p>15 And if there's something different</p> <p>16 than that to be discussed, to bring up, I'm open</p> <p>17 to hearing about that.</p> <p>18 MR. BOWERS: I think our chief is a good</p> <p>19 resource, if you have any questions. But I think,</p> <p>20 exactly what we're saying. The checklist is not</p> <p>21 here. We can't really talk about the request</p> <p>22 without having the complete package.</p> <p>23 ACTING CHAIRMAN BAUGHMAN: So with that,</p> <p>24 we'll ask you to resubmit, ask for approval to</p> <p>25 come to the September meeting, which is past the</p>
<p style="text-align: right;">Page 40</p> <p>1 typical 45 days, but I think that there's --</p> <p>2 MS. JEFFERSON: Under the circumstances,</p> <p>3 I think that we could work with them.</p> <p>4 ACTING CHAIRMAN BAUGHMAN: Yes.</p> <p>5 MR. REYNOLDS: Now, do you want the</p> <p>6 whole package with the checklist, or submit the</p> <p>7 checklist and the ten copies again, the whole</p> <p>8 thing?</p> <p>9 ACTING CHAIRMAN BAUGHMAN: The complete</p> <p>10 package, please.</p> <p>11 MR. REYNOLDS: Thank you, sir.</p> <p>12 ACTING CHAIRMAN BAUGHMAN: All right.</p> <p>13 Any other questions? Any other comments?</p> <p>14 (No verbal response.)</p> <p>15 ACTING CHAIRMAN BAUGHMAN: All right.</p> <p>16 Well, thank you. I appreciate it very much, and</p> <p>17 we look forward to seeing you again.</p> <p>18 Thank you for everyone's input and...</p> <p>19 For the record, make sure that you</p> <p>20 have the availability of resubmitting so that we</p> <p>21 can bring this into the September 19th agenda.</p> <p>22 Do we need to have a motion to take</p> <p>23 what we had off the table, or just clear it?</p> <p>24 MR. BAILEY: No. The only motion you</p> <p>25 had was to discuss.</p>	<p style="text-align: right;">Page 41</p> <p>1 ACTING CHAIRMAN BAUGHMAN: To discuss.</p> <p>2 Very good. All right. Thanks again, guys, both</p> <p>3 of you. I'm apologetic, but that helps us</p> <p>4 identify and go through the procedures that need</p> <p>5 to be done. So thank you.</p> <p>6 On to the next item on the agenda,</p> <p>7 18-07, Occidental Chemical Corp, OxyChem, in</p> <p>8 New Johnsonville, Tennessee, is requesting a</p> <p>9 variance for one vessel to operate under the</p> <p>10 requirements of the 20-minute rule. I'll ask if</p> <p>11 there's any conflicts of interest before we have a</p> <p>12 motion to discuss.</p> <p>13 (No verbal response.)</p> <p>14 ACTING CHAIRMAN BAUGHMAN: No conflicts</p> <p>15 identified.</p> <p>16 I'll have just a quick motion to</p> <p>17 discuss the proposal.</p> <p>18 MR. BOWERS: Motion to discuss.</p> <p>19 MR. HENRY: Second.</p> <p>20 ACTING CHAIRMAN BAUGHMAN: Motion made</p> <p>21 by Harold Bowers, seconded by Mr. Henry.</p> <p>22 In favor?</p> <p>23 (Affirmative response.)</p> <p>24 ACTING CHAIRMAN BAUGHMAN: Opposed?</p> <p>25 (No verbal response.)</p>

<p style="text-align: right;">Page 42</p> <p>1 ACTING CHAIRMAN BAUGHMAN: All right.  2 If you will please introduce  3 yourselves.  4 MR. NEVILLE: James Neville with Neville  5 Engineering.  6 MR. WILSDORF: Don Wilsdorf, the  7 operations manager at Occidental Chemical.  8 MR. WHITLEY: And Bruce Whitley, the  9 subject matter coordinator.  10 ACTING CHAIRMAN BAUGHMAN: Bruce, Don,  11 thank you. All right. Present.  12 MR. NEVILLE: We're here today to  13 request a variance to the 20-minute rule for one  14 power boiler. This boiler is fired off of a  15 chemical process that I'll have Mr. Wilsdorf  16 explain to you. That chemical process produces  17 hydrogen, and that's the fuel for this boiler. So  18 if you would like to introduce that process.  19 MR. WILSDORF: Sure. I'll tell you a  20 little bit about our plant and what we do. Of  21 course, we started this plant in 2014. We supply  22 chlorine and caustic soda to Chemours, formerly  23 DuPont, locally there.  24 In a chloralkali manufacturer, you  25 basically take salt and, through an</p>	<p style="text-align: right;">Page 43</p> <p>1 electrochemical reaction, you make chlorine,  2 caustic soda, and a byproduct of hydrogen gas. As  3 most plants, what we do with the fuel is we'll  4 make steam or use it in a cogeneration facility to  5 make electricity and steam.  6 When we built this plant, Chemours was  7 going to utilize the hydrogenous fuel, and they've  8 chosen not to do that. So we have a lot of extra  9 fuel that we want to use that will make steam at  10 our facility. So we're installing this boiler to  11 allow us to make our own steam for our needs.  12 Currently, we get steam from TVA  13 through a contract with Chemours, which we will  14 keep as a back-up to our plant needs. But that's  15 what we'll be doing with the fuel, to make steam.  16 MR. NEVILLE: Now, as far as the remote  17 station and the location of this boiler, we've  18 identified that on Figure 1 of our site plan. The  19 remote station will be at the DCS control room.  20 And that's approximately 600 feet from where the  21 boiler is located. That boiler is not in a boiler  22 room. That is in an open space.  23 The individuals at the remote station  24 are the DCS/relief technicians. We've identified  25 their job descriptions in Appendix G. And as far</p>
<p style="text-align: right;">Page 44</p> <p>1 as who the qualified individual is for the boiler  2 attendant, that's the chlorine and evap operating  3 technician. And we've also identified their job  4 description in Appendix G.  5 Now, I would like Bruce to go over  6 their training, as far as how they qualify those  7 individuals. That's important and it's quite a  8 detailed process.  9 MR. WHITLEY: Okay. So I provide all  10 the training. Now, personally, I have been with  11 Occidental Chemical for 28 years. I've got quite  12 a bit of experience under my belt.  13 So basically, we have a training  14 program that we have several levels. We have an  15 overview. We have a basic fundamental course. We  16 have a process-specific training. We also have a  17 job-specific training.  18 Primarily, I work with the overview,  19 the basic fundamentals, and the process-specific  20 personally, myself, on a one-on-one basis, with  21 each and every person. Once they provide to me  22 that they have demonstrated, by a written essay, a  23 flow diagram -- which I do have an example with  24 me, if needed to show -- that provide this  25 information to me, and then they're given a</p>	<p style="text-align: right;">Page 45</p> <p>1 written exam. If they can pass my test, we're in  2 great shape, and they can go outside and they can  3 be trained by -- outside as a job-specific  4 training, which is going to entail training on  5 operating the equipment. That's starting,  6 stopping, pumps, performing emergency operations,  7 things of such, particularly identifying what each  8 and every equipment does and what it's designed to  9 do, and what the overall -- maybe some of the  10 hazards that may be associated with it.  11 The initial training is provided by  12 myself. There is a checklist that I have designed  13 for each training level. We go through the  14 checklist, and once that training item has been  15 completed and they demonstrate it proficiently,  16 then I'll mark it off and then we'll go to the  17 next until that checklist is complete.  18 Once that's done, then we have another  19 level. And it's not just me that's going to do  20 all this qualifying. We also have an area process  21 supervisor who's got some predesigned questions  22 that he feels like is going to be important and  23 critical to operate this one particular unit. He  24 will ask these questions and expect some desired  25 results of these answers.</p>

<p style="text-align: right;">Page 46</p> <p>1 If they're answered successfully, the 2 process supervisor will qualify, or send out a 3 qualification, that's going to be sent out to me, 4 and then I'll draft up a qualification letter 5 qualifying them.</p> <p>6 So it's basically several different 7 layers and other people besides myself qualifying 8 this individual, or each employee that we have.</p> <p>9 MR. BOWERS: So looking at this piece of 10 equipment, how do you set the training up? What 11 guidelines do you go by to set the right training 12 up for this specific piece of equipment? What 13 data do you go by?</p> <p>14 MR. WHITLEY: Well, Occidental Chemical 15 provides guidance, as far as what a training 16 program is. So they have their corporate 17 guidelines that we follow. And they have the 18 structured levels --</p> <p>19 MR. WILSDORF: I think he's talking 20 about the manufacturers. The manufacturer is our 21 starting point for their equipment.</p> <p>22 MR. BOWERS: Exactly. That's where I 23 was going. You go by what the manufacturer 24 recommends on how to operate this piece of 25 equipment?</p>	<p style="text-align: right;">Page 47</p> <p>1 MR. WHITLEY: Yes.</p> <p>2 MR. WILSDORF: Correct. For the boiler 3 specific. The main controls for controlling the 4 safety of the units, the burn management system, 5 which is -- that's all integral to the 6 manufacturer anyway. And so we follow, then, the 7 control system -- this is kind of a -- it's 8 similar to the one you heard about earlier.</p> <p>9 Emerson DeltaV controls our whole process, so we 10 have -- there's two stages to the controlling of 11 this boiler, which is -- one is the DCS will 12 control a portion, and the BMS is a separate 13 piece. It also manages the operation.</p> <p>14 All the control points that we have 15 are -- of course, our corporate engineering group 16 and process engineers of the facility, along with 17 the manufacturer, came up with the overall 18 operation strategy that he, then, puts into his 19 training program.</p> <p>20 MR. BOWERS: Yeah. Training is only 21 good if it's the correct training.</p> <p>22 MR. WILSDORF: That is correct. That's 23 right.</p> <p>24 MR. BOWERS: Going to this boiler, this 25 is an S-stamped ASME boiler?</p>
<p style="text-align: right;">Page 48</p> <p>1 MR. WILSDORF: Uh-huh.</p> <p>2 MR. NEVILLE: That is correct.</p> <p>3 MR. BOWERS: I notice it doesn't have a 4 national board number listed.</p> <p>5 MR. NEVILLE: Right. We will update 6 that, and we have been given the Tennessee number 7 for those boilers, as well.</p> <p>8 MR. BOWERS: That's what I was fixing to 9 ask next.</p> <p>10 MR. NEVILLE: And the DA is -- also 11 has --</p> <p>12 MR. BOWERS: So it has been inspected by 13 the State of Tennessee, and approved, then.</p> <p>14 MR. NEVILLE: It has.</p> <p>15 MR. WILSDORF: Correct.</p> <p>16 MR. HARGROVE: What's the timeline on 17 the training that you were describing, the period 18 that it takes place?</p> <p>19 MR. WHITLEY: Well, basically, it 20 started since the day that we started doing some 21 groundbreaking, so --</p> <p>22 MR. WILSDORF: Well, he's talking about 23 for this.</p> <p>24 So I think the key for the boiler -- 25 you started, what, a month ago?</p>	<p style="text-align: right;">Page 49</p> <p>1 MR. WHITLEY: It was over a month ago.</p> <p>2 MR. WILSDORF: Over a month ago. We've 3 already taken through an initial phase of where 4 he's putting through the initial training where 5 they have books and whatnot. But they're 6 following through with his program. Then that'll 7 lead to -- we're in the process of the 8 commissioning the boiler. It'll probably be 9 another week or so before we get to that phase.</p> <p>10 But they'll -- and then Indeck, the manufacturer, 11 also will come on site, and we'll work with them, 12 along with, then, some field training. We've also 13 had Nalco and Emerson, also, came in and did some 14 training, as well. So that's been happening for 15 about a month.</p> <p>16 ACTING CHAIRMAN BAUGHMAN: So this is a 17 Coen burner that's on this unit?</p> <p>18 MR. WHITLEY: Yes.</p> <p>19 MR. WILSDORF: I believe that is 20 correct, yes.</p> <p>21 ACTING CHAIRMAN BAUGHMAN: You made 22 mention, Bruce, that during the training, that 23 part of the training would maybe identify hazards. 24 I would love for you to change that wording to 25 "shall" --</p>

<p style="text-align: right;">Page 50</p> <p>1 MR. WHITLEY: Okay.</p> <p>2 ACTING CHAIRMAN BAUGHMAN: -- "identify</p> <p>3 the hazards."</p> <p>4 MR. WHITLEY: Yeah, sure.</p> <p>5 ACTING CHAIRMAN BAUGHMAN: And that was</p> <p>6 just verbiage. That wasn't wrote down anywhere.</p> <p>7 But it's just a matter of thought process.</p> <p>8 Within this particular system, it is</p> <p>9 NFPA85; but in here, I see no nomenclature</p> <p>10 regarding any UL approvals. Being that this is a</p> <p>11 special control system that Indeck has put</p> <p>12 together in conjunction with mounting the Coen</p> <p>13 burner --</p> <p>14 MR. NEVILLE: In Appendix B, we do list</p> <p>15 that it is -- that system is UL-listed.</p> <p>16 ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>17 And what page is that on?</p> <p>18 MR. NEVILLE: That is on B-1.</p> <p>19 ACTING CHAIRMAN BAUGHMAN: B-1?</p> <p>20 MR. NEVILLE: Yes.</p> <p>21 ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>22 That is the burner controller itself.</p> <p>23 MR. NEVILLE: That's correct.</p> <p>24 ACTING CHAIRMAN BAUGHMAN: But there's</p> <p>25 other items besides the controller, and that's</p>	<p style="text-align: right;">Page 51</p> <p>1 what I was looking for the identification of, was</p> <p>2 making sure that the other system components would</p> <p>3 carry the proper UL listings.</p> <p>4 MR. NEVILLE: Yes. And that is also</p> <p>5 listed. On B-24, there's also UL listings on the</p> <p>6 controls. B-22 -- really, B-22 through B-24, on</p> <p>7 the Indeck controls, UL-listed and marked as far</p> <p>8 as the...</p> <p>9 Do you see Note 2 on B-22?</p> <p>10 ACTING CHAIRMAN BAUGHMAN: B-22...</p> <p>11 MR. NEVILLE: And this is from the</p> <p>12 manufacturer.</p> <p>13 ACTING CHAIRMAN BAUGHMAN: Oh, I see,</p> <p>14 uh-huh, UL-listed and marked.</p> <p>15 MR. TOTH: Mr. Chairman?</p> <p>16 ACTING CHAIRMAN BAUGHMAN: Yes, sir, Mr.</p> <p>17 Toth.</p> <p>18 MR. TOTH: Mr. Chairman, this is Marty</p> <p>19 Toth, ECS Consulting.</p> <p>20 You had mentioned UL, specifically.</p> <p>21 Just to clarify, it could be a another nationally</p> <p>22 recognized testing organization besides UL,</p> <p>23 correct?</p> <p>24 ACTING CHAIRMAN BAUGHMAN: Yes, sir.</p> <p>25 MR. TOTH: Okay. Thank you.</p>
<p style="text-align: right;">Page 52</p> <p>1 ACTING CHAIRMAN BAUGHMAN: And from what</p> <p>2 I'm reading on this, on page B-22 it lists the</p> <p>3 freestanding NEMA 4X enclosure, UL-listed and</p> <p>4 marked. And that's more related to the enclosure</p> <p>5 itself and not the components. But is that not --</p> <p>6 MR. NEVILLE: The Allen-Bradley</p> <p>7 controllers, as well, those are UL-listed.</p> <p>8 ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>9 MR. NEVILLE: We can provide that as</p> <p>10 well.</p> <p>11 ACTING CHAIRMAN BAUGHMAN: Super. Just</p> <p>12 as a party of the customer's liabilities and</p> <p>13 accountabilities that it needs to be UL-listed, or</p> <p>14 an approved agency within this particular system.</p> <p>15 This is a very unique system, and it's kind of</p> <p>16 neat how it operates and what you've got there.</p> <p>17 So we do need the NBA number</p> <p>18 identified. We do have a Tennessee number. Is</p> <p>19 the national board number on your particular data</p> <p>20 report there as it is already?</p> <p>21 MR. NEVILLE: The Tennessee number is;</p> <p>22 the national board number is not. We will</p> <p>23 upgrade. We will get those as well.</p> <p>24 ACTING CHAIRMAN BAUGHMAN: I see. But</p> <p>25 you do have the manufacturer's data report.</p>	<p style="text-align: right;">Page 53</p> <p>1 MR. NEVILLE: Yes, uh-huh.</p> <p>2 ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>3 And then on the DA itself, the DA does not have a</p> <p>4 Tennessee number identified on it either.</p> <p>5 MR. NEVILLE: We have that now.</p> <p>6 MR. WILSDORF: Here's the number, 980.</p> <p>7 MR. NEVILLE: 980 is the national board</p> <p>8 number. But on the DA, that's Tennessee Number</p> <p>9 T118123.</p> <p>10 ACTING CHAIRMAN BAUGHMAN: Thank you,</p> <p>11 Mr. Neville.</p> <p>12 Any other questions?</p> <p>13 MR. WILSDORF: Would it help for me to</p> <p>14 describe the remote monitoring and the field</p> <p>15 monitoring a little bit better for you?</p> <p>16 ACTING CHAIRMAN BAUGHMAN: Absolutely.</p> <p>17 Thank you, Don.</p> <p>18 MR. WILSDORF: That's fine. We operate</p> <p>19 as a 24/7 operation. We work two 12-hour shifts</p> <p>20 with our personnel. We have one lead technician.</p> <p>21 We call him our shift supervisor, he might more</p> <p>22 commonly be referred to. But we have two DCS</p> <p>23 board operators. They are our remote station</p> <p>24 people, if you will. And they operate the plant</p> <p>25 from one location.</p>

<p style="text-align: right;">Page 54</p> <p>1 We have four field technicians, which  2 as James described earlier, the chlorine and  3 caustic utilities, that's the main purpose -- they  4 kind of rotate their key responsibilities,  5 depending on how they're divided in a plant. But  6 all of these people are trained to operate this  7 boiler, because they may rotate in. So you could  8 pull somebody from other places. There will be  9 technically four field people that could respond  10 to the boiler in the field.</p> <p>11 We also have a closed-circuit camera  12 that monitors other processes, and we have one  13 specifically located and mounted for the boiler  14 that can see controls and operations around the  15 boiler, as well as, you know, the DCS sees what it  16 sees on the screen, so...</p> <p>17 ACTING CHAIRMAN BAUGHMAN: So under  18 this, we are making the checks no longer than  19 every four hours. Somebody is going in --</p> <p>20 MR. WILSDORF: That is correct.</p> <p>21 ACTING CHAIRMAN BAUGHMAN: -- and making  22 the checks and logging.</p> <p>23 MR. WILSDORF: That is correct.</p> <p>24 ACTING CHAIRMAN BAUGHMAN: You mentioned  25 having the cameras looking at the boilers.</p>	<p style="text-align: right;">Page 55</p> <p>1 Is that actually something that we've  2 discussed in years past, Mr. Toth? Do you know?</p> <p>3 MR. TOTH: I'm sorry, Mr. Chairman. I  4 was distracted.</p> <p>5 ACTING CHAIRMAN BAUGHMAN: I noticed.  6 And that's why I called on you.</p> <p>7 MR. TOTH: Sir?</p> <p>8 ACTING CHAIRMAN BAUGHMAN: I was asking  9 about utilizing cameras to be able to look at the  10 boilers, and I know we've talked about that in  11 years past. So I just wanted to kind of ask about  12 that again.</p> <p>13 MR. TOTH: That's a great question.  14 Honestly, the very first variance that was passed  15 by the State of Tennessee, actually consisted of a  16 camera that was mounted to where you could see the  17 site glass and gauges and things like that. That  18 has since, kind of, gone by the way of the -- the  19 experience that that's not quite sufficient. So  20 it's something that you don't do. It's good to  21 have as a secondary, but you don't need to rely on  22 it.</p> <p>23 ACTING CHAIRMAN BAUGHMAN: Is that  24 actually listed anywhere in our codes? Because --</p> <p>25 MR. TOTH: Listed as what?</p>
<p style="text-align: right;">Page 56</p> <p>1 ACTING CHAIRMAN BAUGHMAN: As not  2 acceptable. Because I know we've talked about  3 line-of-sight checks, even to the extent of line  4 of sight being the boiler being a hundred feet  5 away, that if I can see the boiler, that  6 constitutes a line of sight. The cameras being  7 the same thing.</p> <p>8 But I'm interested, since you just  9 mentioned that you've got cameras looking at it,  10 have we ever talked or addressed that?</p> <p>11 MR. TOTH: Well, Mr. Chairman, that's a  12 great question. Let me ask you a question. Are  13 you looking for it to take the place of the boiler  14 attendant or the remote attendant?</p> <p>15 ACTING CHAIRMAN BAUGHMAN: Neither.</p> <p>16 MR. TOTH: Neither.</p> <p>17 ACTING CHAIRMAN BAUGHMAN: I'm looking  18 at it for --</p> <p>19 MR. TOTH: So when we talk about a  20 camera being line of sight in the vicinity, you're  21 really talking about the boiler attendant, the  22 boiler operator itself. The operator, obviously,  23 needs to be in the vicinity of the boiler to do  24 their checks, once every four hours, in regards to  25 a variance, if that's what you're referring to.</p>	<p style="text-align: right;">Page 57</p> <p>1 Obviously, it wouldn't be satisfactory  2 to have a camera and nobody monitoring the camera.  3 So I hope I answered that question. I don't think  4 it really follows the intent of the rule.</p> <p>5 ACTING CHAIRMAN BAUGHMAN: And I bring  6 that up because I've been asked in the field  7 before, because in this day and age of live  8 streaming, cell phones, and so forth, is the  9 constitution or the point of looking at the  10 boiler -- no longer than once every 20 minutes, it  11 says the boiler shall be checked -- but there's no  12 specific checks wrote in, and line of sight  13 constitutes a check. And so does this constitute  14 a check (indicating)?</p> <p>15 MR. TOTH: Uh-huh.</p> <p>16 ACTING CHAIRMAN BAUGHMAN: Does this  17 constitute a check (indicating)?</p> <p>18 And so I bring that up, just food for  19 thought, because there's going to be further  20 discussion on it at some point in time, because  21 the questions get asked to us in the field, and  22 there's nothing specific that we have in our rules  23 that address that.</p> <p>24 MR. TOTH: So in other words, what  25 you're referring to is the 20-minute rule,</p>

<p style="text-align: right;">Page 58</p> <p>1 specifically --</p> <p>2           ACTING CHAIRMAN BAUGHMAN: Yes.</p> <p>3           MR. TOTH: -- not necessarily a</p> <p>4 variance.</p> <p>5           ACTING CHAIRMAN BAUGHMAN: That's</p> <p>6 correct.</p> <p>7           MR. TOTH: Yeah. That's definitely --</p> <p>8 there's room for discussion on that, especially</p> <p>9 with the advent of the controls and safety devices</p> <p>10 over the years. I don't know if right now is</p> <p>11 necessarily the forum for that, but it would be</p> <p>12 good to have that discussion sometime.</p> <p>13           ACTING CHAIRMAN BAUGHMAN: Yeah. Well,</p> <p>14 thanks for your input, Mr. Toth, very much.</p> <p>15           Mr. Bowers, did you have something?</p> <p>16           MR. BOWERS: No. On a variance, of</p> <p>17 course, it would have to come before the board,</p> <p>18 and we, of course, wouldn't approve it.</p> <p>19           Now, you brought up the 20-minute</p> <p>20 rule. That brings up a whole different</p> <p>21 discussion. And maybe in our rules we need to be</p> <p>22 specifically saying an actual person looking at</p> <p>23 something, not a camera. I don't know if it --</p> <p>24 we'd have to look at the rules and see how that</p> <p>25 defines that. But I've had locations that had</p>	<p style="text-align: right;">Page 59</p> <p>1 cameras as a backup, but not -- never the primary.</p> <p>2           MR. WILSDORF: Sure.</p> <p>3           MR. NEVILLE: To clarify --</p> <p>4           ACTING CHAIRMAN BAUGHMAN: And I didn't</p> <p>5 mean to get off on a whole different discussion</p> <p>6 within that. But I just wanted to bring it up</p> <p>7 offhand because if I don't mention it or think</p> <p>8 about it, I'll forget about it. Thank you very</p> <p>9 much.</p> <p>10           MR. NEVILLE: This is just an additional</p> <p>11 safety feature for the remote station, to have a</p> <p>12 physical eye on it.</p> <p>13           MR. WILSDORF: Correct.</p> <p>14           ACTING CHAIRMAN BAUGHMAN: Yes. Thank</p> <p>15 you, Don.</p> <p>16           MR. WILSDORF: Thank you.</p> <p>17           ACTING CHAIRMAN BAUGHMAN: Other</p> <p>18 questions?</p> <p>19           MR. HARGROVE: Just a comment,</p> <p>20 Mr. Chairman. You know, we have the opportunity</p> <p>21 to look at a number of variance submittals, and</p> <p>22 even though the boiler functional operations are</p> <p>23 the same, the applications of the different type</p> <p>24 of companies are different.</p> <p>25           I'd like to, just as a comment, the</p>
<p style="text-align: right;">Page 60</p> <p>1 current system description, to help inform this</p> <p>2 board, as well as to add value to the document, be</p> <p>3 a little more descriptive. I know Neville has</p> <p>4 done that in the past.</p> <p>5           MR. NEVILLE: Yes.</p> <p>6           MR. HARGROVE: So I would just like to</p> <p>7 make a comment that in the current system</p> <p>8 description, add content that's relevant and</p> <p>9 provides clarity and understanding for the board</p> <p>10 member, but also for yourselves.</p> <p>11           MR. NEVILLE: Okay.</p> <p>12           ACTING CHAIRMAN BAUGHMAN: Is this unit</p> <p>13 presently in operation.</p> <p>14           MR. WILSDORF: No. It is --</p> <p>15 construction is completing this week, and we will</p> <p>16 be starting the commissioning going forward over</p> <p>17 the next few weeks.</p> <p>18           ACTING CHAIRMAN BAUGHMAN: Fantastic.</p> <p>19 Are there any other questions? Comments?</p> <p>20           (No verbal response.)</p> <p>21           ACTING CHAIRMAN BAUGHMAN: Well, hearing</p> <p>22 none, then I will make the motion that we accept</p> <p>23 the proposed request for variance, contingent upon</p> <p>24 acceptance by the State of Tennessee inspection,</p> <p>25 and that we have the proper nomenclature under the</p>	<p style="text-align: right;">Page 61</p> <p>1 boiler data sheet.</p> <p>2           Anything else? Any other items to</p> <p>3 address on that?</p> <p>4           MR. BAILEY: Mr. Chairman, I think</p> <p>5 someone -- one of the other board members needs to</p> <p>6 make the motion. You said that you make the</p> <p>7 motion.</p> <p>8           ACTING CHAIRMAN BAUGHMAN: Oh.</p> <p>9           MR. BAILEY: The Chairman shouldn't --</p> <p>10           ACTING CHAIRMAN BAUGHMAN: Very good.</p> <p>11 Thank you, Mr. Bailey.</p> <p>12           I'll ask for a motion to accept the</p> <p>13 request.</p> <p>14           MR. BOWERS: Yeah. I make a motion that</p> <p>15 we accept, contingent on proper inspection, that</p> <p>16 it pass inspection, and updating your manual with</p> <p>17 all the criteria, the Tennessee number and</p> <p>18 national board number, and everything that has to</p> <p>19 be updated, and nomenclature of the boiler.</p> <p>20           ACTING CHAIRMAN BAUGHMAN: Do I have a</p> <p>21 second?</p> <p>22           MR. HARGROVE: I second.</p> <p>23           ACTING CHAIRMAN BAUGHMAN: All right.</p> <p>24 I'll call for a vote. All in favor?</p> <p>25           (Affirmative response.)</p>

<p style="text-align: right;">Page 62</p> <p>1           ACTING CHAIRMAN BAUGHMAN: All those 2 opposed?</p> <p>3           (No verbal response.)</p> <p>4           ACTING CHAIRMAN BAUGHMAN: Brother 5 Bruce, Brother Don, you have a variance.</p> <p>6           MR. WILSDORF: Thank you sir.</p> <p>7           MR. WHITLEY: Thank you.</p> <p>8           ACTING CHAIRMAN BAUGHMAN: Mr. Neville, 9 thank you, also, for your input and all those 10 others in that discussion. Thank you very much.</p> <p>11           Very good. So that brings us up to 12 the next item, which is open discussion items. So 13 I'll ask the representative from the Department, 14 Deborah?</p> <p>15           MS. RHONE: Yes. Deborah Rhone, boiler 16 office supervisor.</p> <p>17           I wanted to announce and present to 18 others that we did receive the approval for our 19 2018 Tennessee Boiler Inspector Safety Conference, 20 which we have sent out announcements.</p> <p>21           The conference, Full Steam Ahead with 22 Safety, is going to be held on September 17th 23 through the 21st, here in Nashville at this 24 location, the 220 French Landing Drive, with the 25 special inspectors training beginning on</p>	<p style="text-align: right;">Page 63</p> <p>1 Wednesday, September the 19th at 9:00, with the 2 board of boiler rules meeting being held that day.</p> <p>3           And we'll also conclude on Thursday, 4 September 20th, for the special deputy inspectors, 5 with an awards banquet at 6:00 p.m. here at this 6 location.</p> <p>7           Our host hotel will be the Fairfield 8 Inn at Metro Center. And the hotel is offering a 9 conference rate for all attendees if you make the 10 announcement that you're with the safety 11 conference.</p> <p>12           Our registration, we currently have 13 approximately 20 additional slots. There's 14 registration forms on the back of the table. So 15 we only have 20 slots left. They're going fast. 16 So we're real excited.</p> <p>17           We've got a few new and unique things 18 that's going to be on the agenda. So it's going 19 to be a very full, fun, exciting, knowledgeable 20 training. And we hope to see you all there.</p> <p>21           ACTING CHAIRMAN BAUGHMAN: Does anybody 22 have any questions for Ms. Rhone?</p> <p>23           (No verbal response.)</p> <p>24           ACTING CHAIRMAN BAUGHMAN: No? Well, 25 we're excited that it's back on the schedule for</p>
<p style="text-align: right;">Page 64</p> <p>1 this year. It's such a great time, for one, of 2 being able to expand upon experiences and 3 knowledge within the industry. We're all in this 4 together from the standpoint of safety. But what 5 a great time of fellowship with those in our 6 industry also.</p> <p>7           And I just want to thank you for the 8 efforts in getting this together. I'd like to 9 give thanks, also, to the administration for the 10 support and through the State in supporting this 11 also.</p> <p>12           But thank you very much, Ms. Rhone. 13 We're very appreciative of you.</p> <p>14           MS. RHONE: You're welcome. And, of 15 course, it's always a team effort.</p> <p>16           ACTING CHAIRMAN BAUGHMAN: Absolutely.</p> <p>17           Are there any other items that are 18 open for discussion?</p> <p>19           Yes, sir, Mr. Toth?</p> <p>20           MR. TOTH: Yes, Mr. Chairman. I would 21 like to ask about a submittal of board cases and 22 interpretations. What is the time frame that the 23 chief inspector would like to have those in for 24 submittal to the board?</p> <p>25           MR. CHAPMAN: That's the same. It's</p>	<p style="text-align: right;">Page 65</p> <p>1 45 days.</p> <p>2           MR. TOTH: You want 45 days on those?</p> <p>3           MR. CHAPMAN: Yes.</p> <p>4           MR. TOTH: Thank you.</p> <p>5           Also, the database of keeping those, 6 or the actual link of keeping those board cases 7 and interpretations, appears like it has not been 8 revised in some time. And I was wondering if 9 there is a continuing running database of those 10 interpretations and if those are published 11 somewhere for general knowledge.</p> <p>12           MS. RHONE: I believe the last update 13 was placed on the website. Now, I know we've gone 14 through some web design here at the State. So I 15 wasn't aware that that link wasn't working, at the 16 time. But we did post the latest and the greatest 17 on the website, yes.</p> <p>18           MR. TOTH: Great. If we could just kind 19 of take a look at that and make sure, because that 20 is pretty critical.</p> <p>21           MS. JEFFERSON: And one thing I was 22 going to suggest is that maybe talk with Sam after 23 the meeting because we have updated our websites. 24 You may be looking at an older link that's not 25 working, but we recently updated that information.</p>

<p style="text-align: right;">Page 66</p> <p>1 MR. TOTH: Perfect. Great to hear.  2 Thank you.  3 ACTING CHAIRMAN BAUGHMAN: Excellent.  4 Thank you, Mr. Toth.  5 Any other items for --  6 Mr. Peters?  7 MR. PETERS: Yes, sir. Glad to be here.  8 We've got Intellihot here today.  9 ACTING CHAIRMAN BAUGHMAN: I'm sorry.  10 Would you introduce yourself, Mr. Peters?  11 MR. PETERS: Danny Peters, state boiler  12 inspector, the Knoxville area.  13 MR. SHREINER: Justin Shreiner with  14 Intellihot.  15 ACTING CHAIRMAN BAUGHMAN: Thank you.  16 MR. SHREINER: And you'll have to excuse  17 me. This is my first time doing something like  18 this for a board of this nature. But the  19 intention was to get some clarification on how the  20 inspections are being done, specifically regarding  21 our piece of equipment with a modular design.  22 ACTING CHAIRMAN BAUGHMAN: And excuse me  23 again, but the name of the company?  24 MR. SHREINER: Intellihot.  25 ACTING CHAIRMAN BAUGHMAN: Intellihot?</p>	<p style="text-align: right;">Page 67</p> <p>1 MR. SHREINER: Yes.  2 ACTING CHAIRMAN BAUGHMAN: Thank you.  3 And your name again, please, sir. I'm sorry.  4 MR. SHREINER: Justin Shreiner.  5 ACTING CHAIRMAN BAUGHMAN: Thank you,  6 Justin.  7 MR. O'CONNOR: Michael J. O'Connor, Sr.  8 ACTING CHAIRMAN BAUGHMAN: Michael,  9 thank you.  10 MR. O'CONNOR: And I'm with Mo's  11 Mechanical, not Intellihot.  12 ACTING CHAIRMAN BAUGHMAN: I'm sorry,  13 what company?  14 MR. O'CONNOR: Mo's Mechanical.  15 ACTING CHAIRMAN BAUGHMAN: Mo's?  16 MR. O'CONNOR: M-O apostrophe S  17 Mechanical, LLC.  18 ACTING CHAIRMAN BAUGHMAN: And where are  19 you out of?  20 MR. O'CONNOR: Knoxville, Tennessee.  21 ACTING CHAIRMAN BAUGHMAN: Very good.  22 Thank you.  23 MR. SHREINER: We, Intellihot, have sold  24 this product in the state of Tennessee, and  25 everywhere else in the country for about the last</p>
<p style="text-align: right;">Page 68</p> <p>1 five years now. Specifically, regarding the floor  2 model that has multiple ASME-stamped heat  3 exchangers that are prepiped, plumbed, packaged  4 inside a single cabinet. I don't know the total  5 number in the state of Tennessee. I would guess  6 well over a hundred.  7 MR. BOWERS: Excuse me.  8 MR. SHREINER: Yes, sir?  9 MR. BOWERS: I hate to interrupt. I  10 want to back up a little bit.  11 MR. SHREINER: Yes, sir?  12 MR. BOWERS: What is it? Is it a hot  13 water heater?  14 MR. SHREINER: It is a hot water heater,  15 yes, sir. It is an ASME-stamped Section 4 HLW.  16 This is a water-tube design-type heat exchanger.  17 MR. BOWERS: It's instantaneous?  18 MR. SHREINER: It is. We are approved  19 for domestic hot water only, potable water. We  20 are not a boiler. We do not carry an H stamp.  21 MR. BOWERS: So it's an instantaneous  22 hot water heater, HLW.  23 MR. SHREINER: That is correct.  24 It comes in various sizes. The  25 smallest floor cabinet that we're discussing here</p>	<p style="text-align: right;">Page 69</p> <p>1 would be a 750,000 BTU unit. It consists of three  2 modules inside that cabinet. The million BTU unit  3 would have four, and the 1.5 would consist of six  4 modules internally.  5 Because each heat exchanger carries  6 its own national board number attached to the heat  7 exchanger itself, there's been some discussion on  8 how we're going to inspect this cabinet. It  9 installs like one water heater; it looks like one  10 water heater; it's a single cabinet; it has a  11 single serial number on the back; single model  12 number; and for the last roughly five years, it  13 has been inspected in the state of Tennessee as  14 one unit, one permit pulled.  15 MR. BOWERS: Question.  16 MR. SHREINER: Yes, sir?  17 MR. BOWERS: Are these coils interlinked  18 with each other?  19 MR. SHREINER: They are. They share a  20 common hot header for the outlet. They share a  21 common cold header for the inlet portion. There's  22 automated valves at the cold inlet, going to each  23 heat exchanger, that can shut off. We have a  24 variance regarding this issue in multiple states,  25 Texas being one of which --</p>

<p style="text-align: right;">Page 70</p> <p>1           ACTING CHAIRMAN BAUGHMAN: Excuse me. 2 What is the issue? You say a variance to the 3 issue. What's the issue? 4           MR. SHREINER: The variance is whether 5 or not we're required to pull a single permit or 6 multiple permits, is what it comes down to. So, 7 you know, six permits for essentially the IQ1501, 8 are we having to pull six permits for that one 9 cabinet because of the six heat exchangers 10 internally, or are we pulling one single permit, 11 which, again, is how it's been addressed for the 12 last almost-five years. 13           ACTING CHAIRMAN BAUGHMAN: Okay. Thank 14 you. And a question in the back through Mr. Toth 15 first. 16           MR. TOTH: Mr. Chairman, I can probably 17 help with a little bit of this. 18           ACTING CHAIRMAN BAUGHMAN: Thank you. 19           MR. TOTH: First off, the vessels are 20 all linked together. They're modular. There is 21 no intervening valves in between, correct? 22           MR. SHREINER: That's correct. 23           MR. TOTH: Okay. They are classified, 24 then, as one unit. This would be no different 25 than a low-pressure boiler made of cast iron.</p>	<p style="text-align: right;">Page 71</p> <p>1 Each individual section of that boiler itself has 2 its own individual markings as an H-stamp. 3           Just to correct the gentleman, the HLW 4 is an H stamp. It's just a subsection of 5 Section 4 of the ASME code. I don't -- I'll be 6 honest with you, this would be classified and 7 should be classified as one unit. This is the 8 first I've heard of this. But this should be one 9 unit, just in my opinion. 10           MR. BOWERS: Just like you said, Martin; 11 we've got plenty of boilers out there that are 12 multiple units, you know, with different 13 national -- the Parkers have some like that, 14 multiple coils connected together. Each coil has 15 an individual national board number, but it's 16 still just one unit, and it's still protected 17 under the same pressure relief valves. 18           ACTING CHAIRMAN BAUGHMAN: Right. Well, 19 let me ask -- let me bring something up real 20 quick, while I'm thinking of it. 21           MR. BAILEY: Mr. Chairman? 22           ACTING CHAIRMAN BAUGHMAN: I'm sorry. 23 Go ahead, Mr. Bailey. 24           MR. BAILEY: And it's okay. I don't 25 think there's any problem, maybe, having this</p>
<p style="text-align: right;">Page 72</p> <p>1 discussion, but ultimately, it's going to be the 2 boiler unit's decision as to how they permit this, 3 whether it's one or multiple. And whatever that 4 decision is, if this company disagrees with it, 5 they would have to come before this board to see 6 if that decision could be reversed or overturned. 7           So I think the discussion should be 8 pretty limited, because you could turn around and 9 become the adjudicating body of your own 10 discussion. Do you understand? 11           ACTING CHAIRMAN BAUGHMAN: Yes. 12           And from a technical standpoint, I'm 13 interested in having the discussion on the 14 equipment only, itself, to get a better idea of 15 what it is we're working with. 16           So each one of these units can be tied 17 together with no valving in between, and they have 18 their own individual burner system controller. 19           MR. SHREINER: They're all able to run 20 independently of one another via their own 21 blower/gas valve burner control. 22           ACTING CHAIRMAN BAUGHMAN: So from that 23 standpoint, each unit doesn't get rated 24 separately. You've got to rate the unit, then, 25 together as one whole; is that correct?</p>	<p style="text-align: right;">Page 73</p> <p>1           MR. SHREINER: Each individual -- 2           ACTING CHAIRMAN BAUGHMAN: You're 3 permitting it as one whole unit -- 4           MR. SHREINER: Correct. So that's the 5 gray -- I think that's the gray area here, is that 6 while we test and stamp each individual 7 251,000 BTU ASME heat exchanger that carries its 8 own national board number, they are all tied 9 together into the same piping system within that 10 cabinet with single points of connection on the 11 back of that cabinet. 12           ACTING CHAIRMAN BAUGHMAN: Sure. So 13 what you're asking for is to be permitted as a 14 whole unit. 15           MR. SHREINER: That is correct. 16           ACTING CHAIRMAN BAUGHMAN: So therefore, 17 the controls and everything else associated with 18 that need to be as one unit, which would mean that 19 that has to meet the ASME CSD-1 code, which isn't 20 necessarily applicable to a hot water domestic 21 unit; is that correct? 22           MR. SHREINER: Yes. 23           ACTING CHAIRMAN BAUGHMAN: But any code 24 requirements that relate to that as a complete 25 unit doesn't get -- it's not applicable to each</p>

<p style="text-align: right;">Page 74</p> <p>1 separate module. It would have to be applicable 2 to the capacity of the whole unit combined. 3 MR. SHREINER: Correct. 4 ACTING CHAIRMAN BAUGHMAN: Okay. 5 MR. SHREINER: Yeah. I don't believe 6 CSD-1 would apply to -- yeah. Okay. 7 ACTING CHAIRMAN BAUGHMAN: But anything 8 that we've got from any code requirements, 9 anything else that's a governing body, whether 10 it's UL or any other code governing bodies, would 11 relate to that, then, as a whole unit, since it's 12 being looked at to be permitted as a whole unit. 13 MR. SHREINER: Correct. 14 ACTING CHAIRMAN BAUGHMAN: The relief 15 valves would need to be looked at from a whole 16 unit standpoint and not individually and so forth. 17 MR. SHREINER: That's exactly right. 18 And national board is working on that definition 19 and has already passed the verbiage for a modular 20 water heater. And that has already been passed 21 and approved. That will be in the 2019 next 22 revision, or when that gets adopted. 23 ACTING CHAIRMAN BAUGHMAN: But what 24 we're working with right now is presently 2018. 25 MR. SHREINER: Correct. And there is</p>	<p style="text-align: right;">Page 75</p> <p>1 no -- for 2018, there is no definition for what 2 we're doing, I guess. So the technology has 3 outpaced the code verbiage. 4 ACTING CHAIRMAN BAUGHMAN: Interesting. 5 kay. 6 MR. SHREINER: Now, I will say there are 7 precedents that have been set with Texas, Arizona, 8 Missouri, and other states that have already done 9 a variance on what we're discussing. And Mr. Rob 10 Troutt, who just happens to be the chief boiler 11 inspector of Texas, also sits on the national 12 board for Section 4. 13 And in Texas -- again, I understand 14 it's not Tennessee, but they have -- the verbiage 15 says they are able to pull a single Texas boiler 16 number. Owners of such modular units will be 17 billed for only one boiler, not multiple boilers. 18 And that is also what other states have done as 19 well. 20 ACTING CHAIRMAN BAUGHMAN: It will be 21 interesting to get further discussion on that, 22 Mr. Bowers. 23 MR. BOWERS: The only question I have 24 is, without making any -- what I want to know is 25 why you are asking for a variance -- from what are</p>
<p style="text-align: right;">Page 76</p> <p>1 you asking a variance from? Where in the State of 2 Tennessee code says you can't register it? 3 MR. SHREINER: I don't know the answer 4 to that. Mike may be able to help out. 5 MR. O'CONNOR: May I elaborate? Mike 6 O'Connor. Basically, I am an installing 7 contractor of this product and every other brand. 8 In doing this, they utilize me as a service 9 provider and, also, a start-up agent. 10 So I had went to a job that another 11 mechanical contractor installed two of the IQ751 12 units. When the boiler inspector came and did his 13 inspection, he stated to the maintenance man at 14 this facility, the Comfort Inn, that if one of the 15 heat exchangers fails, you've got to tear the 16 whole system out and replace the whole box. These 17 systems start around 30,000 and up. 18 So this guy calls me, wanting to know 19 if I'd ever heard of anything like that, so I took 20 a minute and I called Mr. Danny Peter, deputy 21 inspector for our area, which is who I've dealt 22 with on four of the installs, I believe, I've done 23 with my company. And he's inspected them and he's 24 permitted it one tag for the unit. 25 The deputy inspector had stated to the</p>	<p style="text-align: right;">Page 77</p> <p>1 maintenance man, basically, you know, we would 2 have to replace it if one of them fails. So my 3 question to Danny was is that true. So Danny, I 4 guess, talked to Chief Chapman, back and forth. A 5 couple days went by. I'm trying to get the man, 6 who called me, an answer. 7 I called Chief Chapman and spoke to 8 him and I gave him my thoughts of being a start-up 9 agent and a service provider for this product. 10 I don't think the question is the 11 payment of each engine; it's the purpose of having 12 to replace the whole system if one heat exchanger 13 fails, instead of carrying up -- one guy could 14 carry this box up and take four or five bolts out 15 of this thing and replace it very simple. 16 My thoughts on that is that it would 17 be crazy for somebody to spend 30- to \$50,000 for 18 a unit and one part of the unit fail and have to 19 replace the whole box. That's why I'm sitting 20 here. 21 MR. BOWERS: Well, I don't quite 22 understand the variance. I guess we would have to 23 talk about it and maybe get a better idea of what 24 you're asking, because -- or make sure that the 25 three units -- the question is are these three</p>

<p style="text-align: right;">Page 78</p> <p>1 separate units, or are these one unit. That's the 2 question. And that's --</p> <p>3 MR. SHREINER: And we're getting mixed 4 messages, depending on what part of the state we 5 sell and install this equipment.</p> <p>6 MR. BOWERS: Well, Sam is the man there, 7 so he can probably give you the definition of 8 what -- I mean, he can show you the code and 9 define it. If you have a question of insurance 10 inspector or state inspector, Sam can probably 11 idle it down to what, actually, the code is.</p> <p>12 ACTING CHAIRMAN BAUGHMAN: Thank you, 13 Mr. Bowers.</p> <p>14 Yes, sir, back in the back?</p> <p>15 MR. HIGGINS: I think there's been 16 some --</p> <p>17 ACTING CHAIRMAN BAUGHMAN: Would you 18 identify yourself, please? I'm sorry.</p> <p>19 MR. HIGGINS: Kelly Higgins with 20 Ferguson Enterprises.</p> <p>21 There's several manufacturers out 22 there now that are selling what they call a rack 23 system with individual wall tankless units. And 24 they're putting them on a rack. The State is 25 doing it, the Navy and everybody and their brother</p>	<p style="text-align: right;">Page 79</p> <p>1 is doing it, and they're making these basically 2 modular systems.</p> <p>3 We have -- Tennessee is a little 4 different. We've got to have some space in 5 between those wall-hung units. I think there may 6 be some confusion on those units being sold as a 7 system versus this unit being sold as a system. 8 And the difference is these are all one connection 9 inside one container versus the rack systems that 10 have multiple units on them that are made in a 11 factory -- or really not made; they're assembled 12 and sent out to end users.</p> <p>13 ACTING CHAIRMAN BAUGHMAN: I think what 14 we've got is we've got boilers that have been like 15 this in the past that are assembled; Hydrotherm, 16 Crown Boiler. And they put these separate boilers 17 in, bank them together. The question in the past 18 has been related more to CSD-1. They would rate 19 these as separate units but they were all together 20 as one unit.</p> <p>21 So people have learned and codes have 22 changed and so forth. A lot of this will go back 23 to NBIC. We're, you know, going to refer back to 24 what the code of the day is.</p> <p>25 So on this particular point, nobody is</p>
<p style="text-align: right;">Page 80</p> <p>1 asking anything. This is an open discussion item. 2 You're not making a presentation for a vote. 3 You're not asking anything in particular, so I 4 appreciate you bringing this up. What I would ask 5 is as this moves forward and you have anything in 6 particular, definitively, that you want to bring 7 to the board for a vote, then I would ask you to 8 identify that, submit it in, in the proper format, 9 and then we can bring it up for discussion and 10 vote at that particular time. And it will be good 11 once it's in the NBIC. So gray areas are tough. 12 When things are black and white, it's a lot easier 13 for us to be able to identify and have discussion 14 on it.</p> <p>15 MR. SHREINER: Okay.</p> <p>16 ACTING CHAIRMAN BAUGHMAN: Mr. Peters?</p> <p>17 MR. PETERS: Yeah, Danny Peters, boiler 18 inspector in Knoxville. I do inspect these 19 vessels, of course. And they're a new item that 20 is on the market, technology high-condensate-type 21 boilers. And when they first started out selling 22 these about five years ago, I seen the first one 23 that rolled off the truck. It was a big thing to 24 me.</p> <p>25 So I looked at it and I seen that the</p>	<p style="text-align: right;">Page 81</p> <p>1 heat exchangers on the inside of the cabinet had 2 no stop valves in between. It had one safety 3 valve that was on the outside, through the outlet. 4 It had one inlet, and it was controlled through 5 one master control that controlled all of them. 6 If there is a safety valve -- no, I'm sorry -- a 7 stop valve that's placed in between them -- which 8 we have had happen with Texas. Mr. Troutt, in 9 trying to regulate his state -- and I've read his 10 letters pertaining to that vessel.</p> <p>11 I do know that they will overheat 12 because of the controls. If you shut one of them 13 off in between those heat exchangers, it's a 14 safety issue. It will burn it up. It will burn 15 it up. The other issue is they allowed them to 16 put safety valves on each one of those heat 17 exchangers, making it a vessel, independent, to 18 where that they were going to inspect each one of 19 them with a state certificate.</p> <p>20 So this has all materialized in and up 21 to the present day. In the meantime, ASME has had 22 their committee, which was in 2017, of Mr. Troutt 23 going to the ASME committee, presenting this, and 24 letting the ASME decide through interpretation and 25 definition of a modular boiler. The definition of</p>

<p style="text-align: right;">Page 82</p> <p>1 a modular boiler is now going to be published in  2 Article 9, Section 4, Number 716. It will read --  3 it will be inserted -- water heater, modular, a  4 water heater assembly consisting of a group of  5 individual heaters called modulars intended to be  6 installed and operated as a unit with no  7 intervening stop valves between the modulars, with  8 a single inlet and a single outlet. Modulars may  9 be under one jacket or may be individually  10 jacketed.</p> <p>11           So we've got a skin casing over heat  12 exchangers, a number -- it may be three or it may  13 be four -- with no intervening stop valves. So  14 the chief inspector in 2015 decided he wanted to  15 put stop valves in between and make it an  16 individual unit to where he can inspect and  17 register for the State each one.</p> <p>18           So as time went on, he realized there  19 was a problem. A safety issue. They even had to  20 go back and put a key on to lock the skin casing  21 so you can't get in this boiler. You have to have  22 a key. And the reason why for the key is they  23 don't want anybody to go in there and shut the  24 stop valve. So it's a safety issue.</p> <p>25           And Intellihot and their manufacturer</p>	<p style="text-align: right;">Page 83</p> <p>1 realized this, that they had to take and put a  2 secure system on that skin case. So with that  3 being said, they have -- Mr. Troutt from Texas,  4 the chief boiler inspector, has, in the meantime,  5 wrote a letter back to the ASME, a supplemental  6 letter, and in that supplemental letter,  7 discussing that he is going to treat it as a one  8 unit, no intervening stop valves in between.</p> <p>9           And ASME accepted that letter -- and  10 I've got the letter -- and in this present time,  11 we've got about eight months until this  12 publication comes out in the ASME Section 4, which  13 is next July 1, 2019. This time frame is all  14 we're dealing with, and I had started out with  15 this company in this area inspecting those vessels  16 as one unit, because they have an inlet coming  17 straight through, going -- no stop valves in  18 between, one safety valve on the outside and one  19 outlet going out. And that's the way I've looked  20 at it.</p> <p>21           ACTING CHAIRMAN BAUGHMAN: What does our  22 present code say? Since this is -- this is --  23 what you're saying is this will be included in  24 2019.</p> <p>25           MR. PETERS: Yes.</p>
<p style="text-align: right;">Page 84</p> <p>1           ACTING CHAIRMAN BAUGHMAN: Until it's  2 actually in 2019, things can be changed, and all  3 we can do is go by present -- I'll defer back to  4 Mr. Toth.</p> <p>5           Yes, sir?</p> <p>6           MR. TOTH: Mr. Chairman, thank you.</p> <p>7           These units and units very similar to  8 this have been addressed in the code for years.  9 NBIC -- first off, the ASME handles construction.  10 Okay? Once it's constructed, they lose any  11 jurisdiction over it. Post-construction goes to  12 the NBIC.</p> <p>13           NBIC has addressed modular units. It  14 doesn't necessarily, specifically, talk about  15 boilers, per se. It talks about units that are  16 connected with no intervening valves can be  17 categorized as a single unit. Okay?</p> <p>18           This case here, if you would let me  19 kind of go out here a little bit, if I have a  20 boiler, and that boiler has a ten-to-one  21 turn-down -- okay? For us technical guys, we know  22 what that is. That means that at high fire, it's  23 ten, and at the lowest fire, it's one. It's no  24 different than what we have here with this. You  25 have multiple units inside. It has a control</p>	<p style="text-align: right;">Page 85</p> <p>1 that's protected by a safety relief valve -- or in  2 this case, a relief valve, because it's water --  3 and it would relieve the maximum capacity of the  4 unit. Okay?</p> <p>5           If they have the controls in place,  6 that will control it at a one or at a ten. It's  7 sufficient. However, since this is just  8 discussion, I will mention the presentation of  9 this is completely out of sorts. This should have  10 been brought up as an action item that should have  11 been delivered to the board. It's not really a  12 discussion item. And that's my two cents.</p> <p>13           And I will answer any other code  14 questions that you have, if I can.</p> <p>15           MR. BOWERS: Well, that's the only  16 question I have on this is, you know, like, we  17 have a variance with a 20-minute rule. We've got  18 a rule that says in 20 minutes you'll do this. We  19 ask for a variance of that. So for you to even  20 ask for a variance, you've got to have something  21 that's not in compliance. And to say it's not in  22 compliance, you have to have a rule saying this is  23 not in compliance from the NBIC or the state rules  24 or something like that.</p> <p>25           So if you were to even ask for a</p>

<p style="text-align: right;">Page 86</p> <p>1 variance, you have to find out what you're not in 2 compliance of. I don't think you even know what 3 you're not in compliance of.</p> <p>4 MR. SHREINER: Is it more an injunction 5 on stopping the enforcement of having to pull 6 multiple permits for a single cabinet versus one 7 permit?</p> <p>8 MR. BOWERS: But where does it say you 9 have to pull multiple permits?</p> <p>10 MR. SHREINER: That's what I'm -- that's 11 what we're --</p> <p>12 MR. BOWERS: No. I want to see the code 13 that says you've got to pull multiple permits.</p> <p>14 MR. O'CONNOR: Right. I understand. 15 The only reason I drove to Nashville to sit here 16 is because I was told this was a public meeting 17 that I could voice my opinion, so I was doing 18 that. I've already spoken to Chief Chapman.</p> <p>19 MR. BOWERS: That's good.</p> <p>20 MR. O'CONNOR: I've talked to Danny. 21 The new inspector, I've not met, Mark Newman, I 22 believe, was his name. I haven't met him. He's 23 the gentleman who explained this to the 24 maintenance guy I was talking to. So that's the 25 only reason why I'm sitting here. I don't know</p>	<p style="text-align: right;">Page 87</p> <p>1 exactly what order things have to happen to make 2 it legal. I'm here so you can teach me, I guess.</p> <p>3 MR. BOWERS: That's right. And you've 4 got a good question. I think you've got a good 5 question. But you've just got to say -- that's 6 what I'm saying. You have to go by the rules that 7 we are set up to go by, and that what we go by. 8 We go by our state laws and we go by our NBIC and 9 ASME. So if someone asks to go beyond that, 10 that's when you have to ask for a variance from 11 these rules that are set up for us to go by.</p> <p>12 ACTING CHAIRMAN BAUGHMAN: Mr. Peters? 13 MR. PETERS: I understand from Mr. Toth 14 saying that this is an open discussion. Yes, we 15 were told to come here by Mr. Chapman and get this 16 out in the public. He wanted it as a public 17 record. Okay?</p> <p>18 We have, in the meantime, tried to get 19 on the agenda for September to present everybody 20 with documents and the codes and the Tennessee 21 code that I more address to you, Harold.</p> <p>22 MR. BOWERS: Okay.</p> <p>23 MR. PETERS: And it's in 800-3-3-.06(f). 24 And this is pertaining to hot water heating 25 boilers. And there again, it's safety when</p>
<p style="text-align: right;">Page 88</p> <p>1 operating conditions are changed or added boiler 2 heat surface is installed. And we've got that 3 with a valve capacity that shall be increased, if 4 necessary, to meet the new conditions and comply 5 with the paragraph.</p> <p>6 When adding valves are required, they 7 may be installed on outlet pipes, provided there 8 is no intervening valves.</p> <p>9 So we have intervening S-valves, not 10 between the safety valve and the boiler, but we've 11 got intervening valves on a heat exchanger that's 12 created, against this code, that -- where we don't 13 need any intervening valves in between these 14 units.</p> <p>15 ACTING CHAIRMAN BAUGHMAN: So let me ask 16 you, real quick. So what you're saying is we have 17 existing installations in the state of Tennessee 18 that have these valves installed?</p> <p>19 MR. PETERS: No valves were installed in 20 the beginning.</p> <p>21 ACTING CHAIRMAN BAUGHMAN: Okay.</p> <p>22 MR. PETERS: They had decided according 23 to our code.</p> <p>24 ACTING CHAIRMAN BAUGHMAN: Okay.</p> <p>25 MR. PETERS: And when they come out, I</p>	<p style="text-align: right;">Page 89</p> <p>1 said, "Man, somebody got smart." So in saying 2 that, they designed these boilers according -- 3 with no valves in between those heat exchangers. 4 Now there are vessels out there that's got valves 5 in between them. They have to go back and take 6 these valves out to keep them from burning up.</p> <p>7 ACTING CHAIRMAN BAUGHMAN: And why were 8 those valves put in place?</p> <p>9 MR. PETERS: They were in place because 10 of a chief boiler inspector that sat on the 11 national board and went to the ASME to change each 12 one of these heat exchangers as an individual 13 unit, and putting a manufactured data plate on 14 each one of them, have that safety valve put on 15 each one of them, have a drain put on each one of 16 them where you can drain each one of them.</p> <p>17 So they had to go back and redesign 18 this in the factory at Intellihot.</p> <p>19 ACTING CHAIRMAN BAUGHMAN: Got you.</p> <p>20 MR. PETERS: So in doing so, we've got a 21 unit out there -- they said, "Okay, we're going to 22 have to keep people who don't know what's going 23 on -- we're going to have to put a lock and key on 24 these things, because we don't want them to shut 25 those valves off."</p>

<p style="text-align: right;">Page 90</p> <p>1           ACTING CHAIRMAN BAUGHMAN: But they've 2 got valves, which makes them individual. 3           MR. PETERS: Yes. 4           ACTING CHAIRMAN BAUGHMAN: Okay. And 5 each one has its own individual stamp on it -- 6           MR. PETERS: Yes. 7           ACTING CHAIRMAN BAUGHMAN: -- as it is. 8           MR. PETERS: Yes. 9           ACTING CHAIRMAN BAUGHMAN: So each one 10 has its own individual data report? 11          MR. PETERS: Yes. And they had to -- 12 their shop designed in accordance to -- 13          ACTING CHAIRMAN BAUGHMAN: Okay. Where 14 are these heat exchangers manufactured? 15          MR. SHREINER: Assembled in Galesburg, 16 Illinois. 17          ACTING CHAIRMAN BAUGHMAN: But where are 18 they manufactured? 19          MR. SHREINER: The coil itself, the 20 water tube coil, comes from Germany. 21          ACTING CHAIRMAN BAUGHMAN: Okay. So 22 we've got a German-manufactured unit that's 23 already stamped. It's got its -- 24          MR. TOTH: ASME stamp. 25          ACTING CHAIRMAN BAUGHMAN: -- ASME stamp</p>	<p style="text-align: right;">Page 91</p> <p>1 and so forth. It's coded. One of the things I've 2 encountered in the past because these things are 3 typically made in France or Europe, and they're 4 made in high quantities, the data reports aren't 5 supplied individually with each unit that's going 6 out. And that's what I've encountered in the past 7 and that I've had to go back and ask for those to 8 actually be supplied, which is what's supposed to 9 be done by our requirements anyway. 10                 Yes, Mr. Peters? 11          MR. PETERS: They do have a data report, 12 and on that data report, as you know, in an HLW 13 shop, they are making them in bunches. They make 14 them by 50 because they want to save paper. They 15 don't make 50 sheets of paper, so they put a 16 serial number with 50. If you subtract that 17 number right there, there's 50 in that note. 18          ACTING CHAIRMAN BAUGHMAN: I see that. 19          MR. PETERS: So in that unit, it's going 20 to be in that number. In that unit, right here, 21 is going to be the national board number. It's in 22 that -- it's corresponding with the serial number 23 and the national board number in their logbook in 24 the shop. 25          ACTING CHAIRMAN BAUGHMAN: Yes. What</p>
<p style="text-align: right;">Page 92</p> <p>1 I'm -- 2           MR. PETERS: So there is traceability on 3 each one of them. 4           ACTING CHAIRMAN BAUGHMAN: Sure. And 5 I'm familiar with that. The thing with it is, 6 it's not always supplied at the time of sale. Out 7 in the field, when you're installing it, you're 8 supposed to actually have that there, and that's 9 not happening in the field. So being that, that's 10 just a point of view from what I see in this 11 service area on it. 12                 But, where do we go from here? This 13 is a great discussion, but in the context of time 14 and wanting to get down to a concise area for 15 furthering, what is it that you would like to see 16 move forward? 17          MR. SHREINER: I think you were right. 18 We need to get on the docket for the September 19 meeting and introduce -- let some people from our 20 factory come in and speak. 21          ACTING CHAIRMAN BAUGHMAN: Okay. 22          MR. SHREINER: I think that would 23 probably be the right thing to do. 24          ACTING CHAIRMAN BAUGHMAN: Ms. Jefferson? 25          MS. JEFFERSON: Now, the other situation</p>	<p style="text-align: right;">Page 93</p> <p>1 was a little different, because they were 2 already -- they had already submitted paperwork to 3 meet the 45-day requirement. And since they had 4 to prepare something different, we will allow them 5 to be on the September's agenda with you-all's 6 approval. 7                 But for this, to my knowledge, no 8 paperwork has been submitted within the 45-day 9 requirement. So for that reason, we would need to 10 place them on the proper agenda. It probably 11 won't be the September agenda, because we already 12 have other items on that agenda. 13                 So if you could just work with Sam's 14 area so that we can try to determine whether or 15 not there's something that's noncompliant, what 16 the issue is. If you can work with Sam's area, 17 and then Sam can provide you more information, let 18 you know what's needed in order for you-all to be 19 placed on the agenda, paperwork you have to submit 20 within 45 days, and then we can place them on the 21 proper agenda. 22          ACTING CHAIRMAN BAUGHMAN: Very good. 23          MR. O'CONNOR: Can I say one more thing? 24          ACTING CHAIRMAN BAUGHMAN: Yes, sir, Mr. 25 O'Connor.</p>

<p style="text-align: right;">Page 94</p> <p>1 MR. O'CONNOR: Basically, what 2 Mr. Peters is talking about, when they first came 3 out without the stop valves and the safety valves 4 and the drain on each heat exchanger, he was 5 coming out and doing our inspection and you'll 6 have one tag. \$75, \$35 -- it was \$110 bucks for a 7 \$30,000; it's a very minimal cost. Not a big 8 deal.</p> <p>9 Where the problem is now, the factory 10 decided to do everything it could to be in 11 compliance with the State of Texas, and added all 12 these trinkets onto each one of these heat 13 exchangers. Which, in turn, now, you have 14 multiple inspectors coming in, and they're reading 15 it and interpreting how they see that cabinet at 16 that point in time. So that being the case, they 17 have had to back up and, I guess, not putting the 18 stop valves in anymore because Texas is not making 19 them.</p> <p>20 They decided to make it the same for 21 the whole country and shipping them out without -- 22 you know, with the stop valves. So now they're 23 going back to no stop valves, no safety valve, no 24 drain on each heat exchanger, back to the way it 25 originally was.</p>	<p style="text-align: right;">Page 95</p> <p>1 So if I were to purchase from Ferguson 2 Supply, I don't know what they're going to ship 3 me; one with stop valves or one without stop 4 valves. So my question that Sam -- Chief Chapman 5 and I talked about, I need to purchase, as an 6 installing contractor, my state permit, \$75, \$75, 7 \$75, \$75 for each heat exchanger if it has a stop, 8 is the way I perceived it. If it doesn't have a 9 stop, \$75 for the cabinet, is how can I read in 10 this boiler rule book and try to figure out, and 11 in speaking with him.</p> <p>12 I don't know of any other way to say 13 it as an installing contractor. You pay. If it 14 has stops, three more times for a medium BTU unit, 15 is the way I see it.</p> <p>16 I know that's not how he has been 17 looking at all of them, but this is a discussion 18 we're trying to figure out as, myself, and a lot 19 of other installing contractors, that I get to go 20 out and make sure they install it right in my 21 local area.</p> <p>22 So I have people asking questions, 23 what are they supposed to do. "If this heat 24 exchanger fails, do I need to replace the whole 25 cabinet?"</p>
<p style="text-align: right;">Page 96</p> <p>1 Chief Chapman said, "No. If we're 2 going to pull a permit per heat exchanger, they 3 can pull a permit if the heat exchanger were to 4 fail and replace that with a boiler permit."</p> <p>5 Is that not what we --</p> <p>6 MR. CHAPMAN: That is what we said.</p> <p>7 MR. O'CONNOR: Do you have anything else 8 you would elaborate on, on this discussion, so I 9 would know how to pull boiler permits in the state 10 of Tennessee and explain to people who are in my 11 shoes of what they need to do.</p> <p>12 MR. CHAPMAN: Just like you said, if it 13 has valves in it, that makes it individual units.</p> <p>14 MR. O'CONNOR: I understand that.</p> <p>15 MR. CHAPMAN: And as long as there's no 16 valves, it's one unit.</p> <p>17 MR. O'CONNOR: That helps me with the 18 discussion that I don't have to come back unless 19 you need me to come back.</p> <p>20 ACTING CHAIRMAN BAUGHMAN: Yes, sir.</p> <p>21 Mr. Toth?</p> <p>22 MR. TOTH: Yes. Just a suggestion, in 23 talking about this. Board cases and board 24 interpretations, when I was chief inspector, was 25 put into place to answer questions like this.</p>	<p style="text-align: right;">Page 97</p> <p>1 What Mr. Bowers said was right on the 2 mark. Where are they in violation? Okay? Can 3 you spell that out? No, you can't.</p> <p>4 So that's where a board case was 5 designed to possibly go against -- not necessarily 6 go against the law, because you can't. But you 7 can act upon a ruling, a board ruling. An 8 interpretation is just what it is. The ASME does 9 it. We do it on the NBIC. That's really where 10 this should be addressed. If it's addressed as an 11 interpretation, it's very simple. It really is.</p> <p>12 ACTING CHAIRMAN BAUGHMAN: I agree.</p> <p>13 MR. TOTH: And that's why we created 14 board cases and interpretations a number of years 15 back.</p> <p>16 ACTING CHAIRMAN BAUGHMAN: I agree.</p> <p>17 Mr. Peters, did you have something?</p> <p>18 MR. PETERS: Yes. I understand what 19 Mr. Toth is saying. But still yet -- and 20 Ms. Kimberly Jefferson and the time frame. Yes, 21 we have these codes and rulings, but I think in a 22 situation here of what we've got and from what 23 Mr. Chapman has let everybody know how these 24 things are supposed to be inspected, we're still 25 looking at a safety issue with those stop valves</p>

<p style="text-align: right;">Page 98</p> <p>1 and burning these units up. And now we've got  2 interpretations of where if you take the whole  3 unit out, we've got new inspectors out there  4 that's hanging tags on everything, and it's to the  5 point to where it's almost ridiculous. And it's  6 getting to the point to where the industry is  7 looking at it as ridiculous, and the owner/user is  8 looking at us like it's ridiculous, and we're  9 trying to determine what to do.</p> <p>10 I would like to recommend today, if we  11 could, in this 45-day time frame, if we could have  12 some sort of a revision -- not a revision, but a  13 variance to that rule to where we could be -- they  14 could be on the September board meeting and they  15 can present their case as a board case, or they  16 can present their case as a clarification of an  17 interpretation. We need to do this as soon as  18 possible. Thank you.</p> <p>19 ACTING CHAIRMAN BAUGHMAN: Thank you,  20 Mr. Peters. And I'll direct that back to  21 Ms. Jefferson and Mr. Bailey for what's the  22 protocol. And I know the agenda is pretty full as  23 it is, and I understand the want and the desire to  24 discuss this in a timely manner. And we need to  25 be able to have the availability of looking at the</p>	<p style="text-align: right;">Page 99</p> <p>1 information ourselves, as board members, to be  2 able to identify questions ahead of time and so  3 forth, and do our due diligence on the homework.  4 So I'll refer over as far as to your thoughts on  5 the agenda.</p> <p>6 MR. SHREINER: If the paperwork was  7 submitted today, would we be within the 45-day  8 window, or is that already past?</p> <p>9 MS. JEFFERSON: The meeting is scheduled  10 for September the 19th, so that's not going to be  11 within the 45 days.</p> <p>12 As the chairman mentioned, it's not  13 just for us, but it's for the board members. They  14 have to have time to analyze all that information.  15 And the unit has to prepare for each one of these  16 cases.</p> <p>17 So I would suggest that we place that  18 on the December meeting agenda. That way it will  19 provide you-all time, sufficient time, to submit  20 all that information to the office. And then we  21 can just go from there.</p> <p>22 MR. O'CONNOR: With that being that way,  23 if we're going to wait until 45 days, we're  24 getting into the next one where he can come speak.  25 How I was explaining to you, as far as</p>
<p style="text-align: right;">Page 100</p> <p>1 pulling permits, if something were to fail on one  2 of the heat exchangers now, would somebody have to  3 replace the whole cabinet, as of right now?</p> <p>4 MR. CHAPMAN: If they're an individual  5 Tennessee member, with that you can pull that unit  6 out and pull another permit for the new unit  7 they're going to watch. I think y'all call them  8 engine, the new engine.</p> <p>9 MR. O'CONNOR: If it's -- say Ferguson  10 sends out one of the units that doesn't have the  11 stops, and one tag has been hung on it, then how  12 do we treat that heat exchanger?</p> <p>13 MR. CHAPMAN: As one unit.</p> <p>14 MR. O'CONNOR: So we would be able to  15 replace the heat exchanger or we would have to  16 replace the whole 30- 40-, \$50,000 unit? That's  17 my question.</p> <p>18 MR. SHREINER: Everything is replaceable  19 in the cabinet. They're all held together by  20 screws.</p> <p>21 ACTING CHAIRMAN BAUGHMAN: I'm going to  22 ask Mr. Toth. He's got some input again, on it.</p> <p>23 MR. TOTH: It's a part. It would be  24 treated like a part. Yeah. Each individual  25 section is -- it's just a part. ASME allows that</p>	<p style="text-align: right;">Page 101</p> <p>1 as a part.</p> <p>2 ACTING CHAIRMAN BAUGHMAN: Here's the  3 way -- I'm sorry. I don't mean to interrupt.</p> <p>4 MR. TOTH: It just needs to be replaced  5 by a code-built section. And as long as the  6 section that's brought in was built to ASME codes  7 and stamped accordingly. It's a part.</p> <p>8 ACTING CHAIRMAN BAUGHMAN: Well, and so  9 I'll make the reference back to cast-iron  10 sectional boilers. We've got individual boiler  11 sections that are put together to make a whole.  12 When we've got a section that goes bad, we replace  13 the section, and not the whole.</p> <p>14 And with these being in modules with  15 no valves in between, I understand that they're  16 each their own stamped individual unit, and  17 they're permitted as one unit as a whole, as a  18 cast-iron boiler would be.</p> <p>19 But as long as you've got the  20 availability of replacing a module or a section,  21 it seems pertinent that that would be able to be  22 replaced. And I don't think that there's any  23 reference anywhere that says that that is not  24 acceptable within the NBIC.</p> <p>25 MR. CHAPMAN: No, there's not.</p>

Page 102

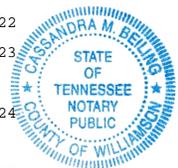
1 MR. O'CONNOR: I understand.  
 2 ACTING CHAIRMAN BAUGHMAN: So is there  
 3 anything else you want to bring to any of the  
 4 other meetings, I look forward to seeing these  
 5 units up and running out in the field and giving  
 6 us hot water. And if they don't work, we know who  
 7 to call.  
 8 And we appreciate you guys bringing  
 9 this in for discussion very much. Appreciate the  
 10 input from everybody, for counsel, you as the  
 11 inspectors, and from those in the audience, and  
 12 here on the board. Thank you very much.  
 13 Anything else?  
 14 (No verbal response.)  
 15 ACTING CHAIRMAN BAUGHMAN: Are there any  
 16 other items that would like to be discussed?  
 17 (No verbal response.)  
 18 ACTING CHAIRMAN BAUGHMAN: Good. So  
 19 being as such, we'll go to the next item, which is  
 20 identifying the next board of boiler rules board  
 21 meeting that's scheduled for 9:00, Wednesday  
 22 September 19th, here at this building. The  
 23 meeting will actually be held in the Pearl Room.  
 24 MS. JEFFERSON: Actually --  
 25 ACTING CHAIRMAN BAUGHMAN: Do we know?

Page 103

1 MS. JEFFERSON: It will be in the Pearl  
 2 room.  
 3 ACTING CHAIRMAN BAUGHMAN: Very good  
 4 discussion. It was great to have the input. I'm  
 5 very thankful. Thank you for working with me, as  
 6 the first time sitting here with this. I tried to  
 7 channel Mr. Morelock as best I could. But being  
 8 that all the items on the agenda have been  
 9 attended to in the discussion, I call for an  
 10 adjournment.  
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END OF THE PROCEEDINGS.

Page 104

1 C E R T I F I C A T E  
 2 STATE OF TENNESSEE )  
 3 COUNTY OF WILLIAMSON )  
 4 I, Cassandra M. Beiling, a Notary Public  
 5 in the State of Tennessee, do hereby certify:  
 6  
 7 That the within is a true and accurate  
 8 transcript of the proceedings taken before the  
 9 Board and the Chief Inspector or the Chief  
 10 Inspector's Designee, Tennessee Department of  
 11 Labor & Workforce Development, Division of  
 12 Workplace Regulations and Compliance, Boiler Unit,  
 13 on the 8th day of August, 2018.  
 14  
 15 I further certify that I am not related to  
 16 any of the parties to this action, by blood or  
 17 marriage, and that I am in no way interested in  
 18 the outcome of this matter.  
 19  
 20 IN WITNESS WHEREOF, I have hereunto set my  
 21 hand this 27th day of September, 2018.  
 22  
 23  
 24  
 25  


\_\_\_\_\_  
 Cassandra M. Beiling, LCR# 371  
 Notary Public State at Large  
 My commission expires: 3/15/2020

<hr/> <b>\$</b> <hr/>	<b>200</b> 13:19	<hr/> <b>5</b> <hr/>	<b>acceptable</b> 56:2 101:24
<b>\$110</b> 94:6	<b>2012</b> 32:20	<b>50</b> 91:14,15,16,17	<b>acceptance</b> 60:24
<b>\$30,000</b> 94:7	<b>2014</b> 42:21	<b>54</b> 10:11,25 11:1,3	<b>accepted</b> 83:9
<b>\$35</b> 94:6	<b>2015</b> 17:2 82:14	<hr/> <b>6</b> <hr/>	<b>access</b> 16:2 17:13 18:1,5,8 19:14
<b>\$50,000</b> 77:17 100:16	<b>2017</b> 81:22	<b>6</b> 21:19,20	<b>accessible</b> 22:1
<b>\$75</b> 94:6 95:6,7,9	<b>2018</b> 9:4,10 11:2 62:19 74:24 75:1	<b>6,110</b> 9:17	<b>accessing</b> 17:18
<hr/> <b>0</b> <hr/>	<b>2019</b> 74:21 83:13,24 84:2	<b>600</b> 43:20	<b>accordance</b> 90:12
<b>0800-03-03-.08(11)</b> 12:9	<b>20th</b> 25:1 63:4	<b>6:00</b> 63:5	<b>accountabilities</b> 52:13
<hr/> <b>1</b> <hr/>	<b>21st</b> 8:19,21 9:4,10 62:23	<hr/> <b>7</b> <hr/>	<b>act</b> 97:7
<b>1</b> 43:18 83:13	<b>220</b> 62:24	<b>7</b> 21:20,21	<b>ACTING</b> 4:2 5:1,12 6:1 7:25 8:12,14,16,24 9:2, 7,9 10:2,8,20,23 11:17, 21 12:13,24 13:4,7,9,14 16:9 20:9 21:3,13 23:5, 8,13,16,20 24:12,18 25:3,6,12,16,20,23 26:5,14,21,24 27:3,18 28:2,14,19,22 29:2,10, 13,16 30:3,7,12,19,22, 24 31:16 33:1,10,14,17, 22 34:1,17,24 35:12,19 36:10,15,17,19 37:1,14, 18,24 38:2,15 39:10,23 40:4,9,12,15 41:1,14, 20,24 42:1,10 49:16,21 50:2,5,16,19,21,24 51:10,13,16,24 52:1,8, 11,24 53:2,10,16 54:17, 21,24 55:5,8,23 56:1, 15,17 57:5,16 58:2,5,13 59:4,14,17 60:12,18,21 61:8,10,20,23 62:1,4,8 63:21,24 64:16 66:3,9, 15,22,25 67:2,5,8,12, 15,18,21 70:1,13,18 71:18,22 72:11,22 73:2, 12,16,23 74:4,7,14,23 75:4,20 78:12,17 79:13 80:16 83:21 84:1 87:12 88:15,21,24 89:7,19 90:1,4,7,9,13,17,21,25 91:18,25 92:4,21,24 93:22,24 96:20 97:12, 16 98:19 100:21 101:2, 8 102:2,15,18,25 103:3
<b>1,191</b> 9:20	<b>24/7</b> 15:16 19:1 22:25 23:2 31:14 53:19	<b>716</b> 82:2	
<b>1,526</b> 9:22	<b>251,000</b> 73:7	<b>750,000</b> 69:1	
<b>1.5</b> 69:3	<b>28</b> 44:11	<b>7:00</b> 19:3	
<b>10</b> 10:10	<hr/> <b>3</b> <hr/>	<hr/> <b>8</b> <hr/>	
<b>100</b> 22:23 31:6	<b>3,402</b> 9:16	<b>8</b> 10:12	
<b>11:00</b> 19:4	<b>30,000</b> 76:17	<b>800-3-3-.06(f)</b> 87:23	
<b>12-hour</b> 53:19	<b>30-</b> 77:17 100:16	<hr/> <b>9</b> <hr/>	
<b>15</b> 9:24	<b>335</b> 9:21	<b>9</b> 82:2	
<b>17th</b> 62:22	<b>365</b> 19:2	<b>9,512</b> 9:18	
<b>18-05</b> 12:6	<b>3:00</b> 19:3	<b>92</b> 32:16	
<b>18-06</b> 29:21	<hr/> <b>4</b> <hr/>	<b>980</b> 53:6,7	
<b>18-07</b> 41:7	<b>4</b> 68:15 71:5 75:12 82:2 83:12	<b>9:00</b> 4:3 63:1 102:21	
<b>1992</b> 32:19	<b>40</b> 21:4,15	<hr/> <b>A</b> <hr/>	
<b>19th</b> 40:21 63:1 99:10 102:22	<b>40-</b> 100:16	<b>a.m.</b> 19:3	
<b>19th's</b> 38:10	<b>44</b> 10:13	<b>ability</b> 22:15	
<hr/> <b>2</b> <hr/>	<b>45</b> 40:1 65:1,2 93:20 99:11,23	<b>Absolutely</b> 53:16 64:16	
<b>2</b> 51:9	<b>45-day</b> 93:3,8 98:11 99:7	<b>accept</b> 8:21,23 28:16, 18,25 29:7 60:22 61:12, 15	<b>action</b> 85:10
<b>20</b> 57:10 63:13,15 85:18	<b>4X</b> 52:3		
<b>20-minute</b> 26:7,20 29:24 41:10 42:13 57:25 58:19 85:17			

<b>active</b> 11:3,5	<b>allowed</b> 81:15	<b>Article</b> 82:2	73:11 77:4 78:14 79:22, 23 82:20 83:5 84:3 89:5,17 91:7 94:17,23, 24 96:18,19 97:15 98:20 101:9
<b>actively</b> 12:18	<b>almost-five</b> 70:12	<b>ASA3</b> 7:11	<b>back-up</b> 43:14
<b>activities</b> 15:25	<b>analyze</b> 38:6 99:14	<b>asks</b> 87:9	<b>backup</b> 16:1 59:1
<b>activity</b> 22:21	<b>Anderson</b> 6:20 12:20 19:22 20:6 25:10,15	<b>ASME</b> 47:25 71:5 73:7, 19 81:21,23,24 83:5,9, 12 84:9 87:9 89:11 90:24,25 97:8 100:25 101:6	<b>bad</b> 37:7 101:12
<b>actual</b> 35:6 58:22 65:6	<b>announce</b> 62:17	<b>ASME-STAMPED</b> 68:2,15	<b>Bailey</b> 6:8 28:24 29:3 36:4,23 37:2 40:24 61:4,9,11 71:21,23,24 98:21
<b>add</b> 60:2,8	<b>announcement</b> 63:10	<b>assembled</b> 79:11,15 90:15	<b>bank</b> 79:17
<b>added</b> 88:1 94:11	<b>announcements</b> 4:11 62:20	<b>assembly</b> 82:4	<b>banquet</b> 63:5
<b>adding</b> 88:6	<b>answers</b> 45:25	<b>assistant</b> 6:6 10:5	<b>based</b> 15:9 32:24
<b>addition</b> 14:3	<b>Anthony</b> 7:16,21 30:8, 13 31:1	<b>assumption</b> 32:5,7	<b>BASF</b> 10:17
<b>additional</b> 59:10 63:13	<b>anticipating</b> 4:16	<b>ATC-CES</b> 4:23	<b>basic</b> 15:2,5 44:15,19
<b>address</b> 4:17 57:23 61:3 87:21	<b>anymore</b> 20:1 94:18	<b>attached</b> 37:22 69:6	<b>basically</b> 37:2 42:25 44:13 46:6 48:19 76:6 77:1 79:1 94:1
<b>addressed</b> 56:10 70:11 84:8,13 97:10	<b>apologetic</b> 41:3	<b>attendance</b> 5:15	<b>basis</b> 44:20
<b>adjournment</b> 103:10	<b>apologize</b> 25:25	<b>attendant</b> 44:2 56:14, 21	<b>Baughman</b> 4:2 5:1,12 6:1,2 7:25 8:12,14,16, 24 9:2,7,9 10:2,8,20,23 11:17,21 12:13,24 13:4, 7,9,14 16:9 20:9 21:3, 13 23:5,8,13,16,20 24:12,18 25:3,6,12,16, 20,23 26:5,14,21,24 27:3,18 28:2,14,19,22 29:2,10,13,16 30:3,7, 12,19,22,24 31:16 33:1, 10,14,17,22 34:1,17,24 35:12,19 36:10,15,17, 19 37:1,14,18,24 38:2, 15 39:10,23 40:4,9,12, 15 41:1,14,20,24 42:1, 10 49:16,21 50:2,5,16, 19,21,24 51:10,13,16, 24 52:1,8,11,24 53:2, 10,16 54:17,21,24 55:5, 8,23 56:1,15,17 57:5,16 58:2,5,13 59:4,14,17 60:12,18,21 61:8,10,20, 23 62:1,4,8 63:21,24 64:16 66:3,9,15,22,25 67:2,5,8,12,15,18,21 70:1,13,18 71:18,22 72:11,22 73:2,12,16,23
<b>adjudicating</b> 72:9	<b>apostrophe</b> 67:16	<b>attended</b> 103:9	
<b>administration</b> 64:9	<b>appears</b> 65:7	<b>attendees</b> 4:14 63:9	
<b>adopt</b> 8:8,10	<b>Appendix</b> 43:25 44:4 50:14	<b>audience</b> 102:11	
<b>adopted</b> 74:22	<b>applicable</b> 73:20,25 74:1	<b>audit</b> 10:13	
<b>adoption</b> 8:5,7,17	<b>applications</b> 59:23	<b>audits</b> 10:16	
<b>advent</b> 58:9	<b>apply</b> 74:6	<b>automated</b> 69:22	
<b>affirmative</b> 8:13 9:6 13:6 29:9 30:21 41:23 61:25	<b>appreciative</b> 64:13	<b>availability</b> 39:2 40:20 98:25 101:20	
<b>age</b> 57:7	<b>approval</b> 8:19 9:5,10 29:6 32:2 39:24 62:18 93:6	<b>awards</b> 63:5	
<b>agency</b> 52:14	<b>approvals</b> 50:10	<b>aware</b> 65:15	
<b>agenda</b> 8:5,6,8,9,17,18 9:12 11:23,25 12:5 38:12 40:21 41:6 63:18 87:19 93:5,10,11,12,19, 21 98:22 99:5,18 103:8	<b>approve</b> 9:3 58:18	<b>aye</b> 30:20	
<b>agendas</b> 8:6	<b>approved</b> 10:12,16,18 11:1,6,7 25:18 48:13 52:14 68:18 74:21	<hr/> <b>B</b> <hr/>	
<b>agent</b> 7:8 76:9 77:9	<b>approximately</b> 43:20 63:13	<b>B-1</b> 50:18,19	
<b>agree</b> 97:12,16	<b>area</b> 45:20 66:12 73:5 76:21 83:15 92:11,14 93:14,16 95:21	<b>B-22</b> 51:6,9,10 52:2	
<b>ahead</b> 14:25 62:21 71:23 99:2	<b>areas</b> 18:1 80:11	<b>B-24</b> 51:5,6	
<b>alarm</b> 18:6 21:18 31:11	<b>Arizona</b> 75:7	<b>back</b> 8:6 11:8 14:2 28:10 32:9,16 36:2,21 37:21 38:4,9,16 63:14, 25 68:10 69:11 70:14	
<b>alarms</b> 15:22			
<b>Allen-bradley</b> 52:6			

74:4,7,14,23 75:4,20 78:12,17 79:13 80:16 83:21 84:1 87:12 88:15, 21,24 89:7,19 90:1,4,7, 9,13,17,21,25 91:18,25 92:4,21,24 93:22,24 96:20 97:12,16 98:19 100:21 101:2,8 102:2, 15,18,25 103:3	24:7,24 25:7,10,13,14, 17 26:6,10 27:5,6,8,11, 13,17,23,25 31:5,11,14 32:4 35:13 36:22 39:4 42:14,17 43:10,17,21 44:1 47:2,11,24,25 48:24 49:8 54:7,10,13, 15 56:4,5,13,21,22,23 57:10,11 59:22 61:1,19 62:15,19 63:2 66:11 68:20 70:25 71:1 72:2 75:10,15,17 76:12 79:16 80:17 81:25 82:1, 21 83:4 84:20 88:1,10 89:10 95:10 96:4,9 101:10,18 102:20	<b>bringing</b> 80:4 102:8 <b>brings</b> 58:20 62:11 <b>brother</b> 62:4,5 78:25 <b>brought</b> 58:19 85:10 101:6 <b>Bruce</b> 6:14 7:12 42:8, 10 44:5 49:22 62:5 <b>BTU</b> 69:1,2 73:7 95:14 <b>bucks</b> 94:6 <b>building</b> 4:14,15 102:22 <b>built</b> 32:15 43:6 101:6 <b>bunches</b> 91:13 <b>burn</b> 47:4 81:14 <b>burned</b> 17:2,3 <b>burner</b> 49:17 50:13,22 72:18,21 <b>burning</b> 89:6 98:1 <b>business</b> 11:23,25 <b>buttons</b> 16:5 <b>buy</b> 77:5 <b>byproduct</b> 43:2	<b>capacity</b> 5:9 74:2 85:3 88:3 <b>car</b> 22:21 <b>Cargill</b> 6:19,21 12:6,7, 16,21 20:20 <b>carries</b> 69:5 73:7 <b>carry</b> 30:1 51:3 68:20 77:14 <b>carrying</b> 77:13 <b>case</b> 21:8 26:19 32:8 83:2 84:18 85:2 94:16 97:4 98:15,16 <b>cases</b> 64:21 65:6 96:23 97:14 99:16 <b>casing</b> 82:11,20 <b>Cassandra</b> 5:17 <b>cast</b> 70:25 <b>cast-iron</b> 101:9,18 <b>categorized</b> 84:17 <b>caustic</b> 42:22 43:2 54:3 <b>cell</b> 57:8 <b>Center</b> 63:8 <b>cents</b> 85:12 <b>certificate</b> 81:19 <b>chairman</b> 4:2 5:1,12 6:1 7:25 8:12,14,16,24 9:2,7,9 10:2,8,20,23 11:17,21 12:13,24 13:4, 7,9,14 16:9 20:8,9 21:3, 13 23:5,8,13,16,20 24:12,18 25:3,6,12,16, 20,23,24 26:5,14,21,24 27:3,18,20 28:2,14,19, 22,24 29:2,10,13,16 30:3,7,12,19,22,24 31:16,19 32:22 33:1,10, 14,17,22 34:1,9,17,24 35:12,19 36:10,15,17, 19,23 37:1,14,18,24 38:2,15 39:10,23 40:4, 9,12,15 41:1,14,20,24 42:1,10 49:16,21 50:2, 5,16,19,21,24 51:10,13, 15,16,18,24 52:1,8,11, 24 53:2,10,16 54:17,21, 24 55:3,5,8,23 56:1,11,
<b>bc9206</b> 26:18 <b>beginning</b> 62:25 88:20 <b>Beiling</b> 5:17 <b>belt</b> 44:12 <b>BFD</b> 24:4 <b>big</b> 80:23 94:7 <b>billed</b> 75:17 <b>bit</b> 21:14 42:20 44:12 53:15 68:10 70:17 84:19 <b>black</b> 80:12 <b>blower/gas</b> 72:21 <b>BMS</b> 15:9,12 17:13,16, 17 24:6 47:12 <b>board</b> 4:3,19,20 5:2,19, 24 6:2,3,5 8:19 12:3 14:17 26:19 34:14 36:6, 9,12 48:4 52:19,22 53:7,23 58:17 60:2,9 61:5,18 63:2 64:21,24 65:6 66:18 69:6 71:15 72:5 73:8 74:18 75:12 80:7 85:11 89:11 91:21, 23 96:23 97:4,7,14 98:14,15 99:1,13 102:12,20 <b>board's</b> 36:4 <b>boards</b> 5:4 <b>bodies</b> 74:10 <b>body</b> 72:9 74:9 <b>boiler</b> 4:3,19 5:20 6:22 7:2,9,13 9:12 10:7,8 13:18,20,21 14:2,4,9, 10,11,13,14 15:8,11,16, 18,19 18:2,3,19,20 19:12,17 20:1 21:14 22:14,16 23:2,11,23,24	<b>boiler/operator</b> 31:9 <b>boilers</b> 12:23 13:16 15:3,7 16:6,12 17:5,7 26:19 28:17 48:7 54:25 55:10 71:11 75:17 79:14,16 80:21 84:15 87:25 89:2 101:10 <b>Boisco</b> 6:17 <b>bolts</b> 77:14 <b>book</b> 95:10 <b>books</b> 49:5 <b>Bowers</b> 6:3 8:10 10:22, 24,25 11:5,10,13,16 13:3 14:5,8,13,16,20, 23,25 16:10,11,14,17, 22,24 17:11 20:10,11, 16,21 21:5 22:4,8,24 23:4 28:18 30:17 36:15, 16 39:18 41:18,21 46:9, 22 47:20,24 48:3,8,12 58:15,16 61:14 68:7,9, 12,17,21 69:15,17 71:10 75:22,23 77:21 78:6,13 85:15 86:8,12, 19 87:3,22 97:1 <b>box</b> 76:16 77:14,19 <b>BPCS</b> 24:6 <b>brand</b> 76:7 <b>brand-new</b> 34:12 <b>briefly</b> 26:2 <b>bring</b> 5:3 36:21 38:8 39:16 40:21 57:5,18 59:6 71:19 80:6,9 102:3	<b>built</b> 32:15 43:6 101:6 <b>burn</b> 47:4 81:14 <b>burned</b> 17:2,3 <b>burner</b> 49:17 50:13,22 72:18,21 <b>burning</b> 89:6 98:1 <b>business</b> 11:23,25 <b>buttons</b> 16:5 <b>buy</b> 77:5 <b>byproduct</b> 43:2	<hr/> <b>C</b> <hr/> <b>cabinet</b> 68:4,25 69:2,8, 10 70:9 73:10,11 81:1 86:6 94:15 95:9,25 100:3,19 <b>Cahill</b> 7:19 <b>California</b> 25:11 <b>call</b> 4:3 29:8,25 53:21 61:24 78:22 100:7 102:7 103:9 <b>called</b> 4:23 39:3 55:6 76:20 77:6,7 82:5 <b>calls</b> 76:18 <b>camera</b> 54:11 55:16 56:20 57:2 58:23 <b>cameras</b> 54:25 55:9 56:6,9 59:1

15,17 57:5,16 58:2,5,13 59:4,14,17,20 60:12,18, 21 61:4,8,9,10,20,23 62:1,4,8 63:21,24 64:16,20 66:3,9,15,22, 25 67:2,5,8,12,15,18,21 70:1,13,16,18 71:18,21, 22 72:11,22 73:2,12,16, 23 74:4,7,14,23 75:4,20 78:12,17 79:13 80:16 83:21 84:1,6 87:12 88:15,21,24 89:7,19 90:1,4,7,9,13,17,21,25 91:18,25 92:4,21,24 93:22,24 96:20 97:12, 16 98:19 99:12 100:21 101:2,8 102:2,15,18,25 103:3	<b>Chemours</b> 42:22 43:6, 13 <b>chief</b> 5:22 9:12,13 10:3, 5 11:18 33:2 39:18 64:23 75:10 77:4,7 82:14 83:4 86:18 89:10 95:4 96:1,24 <b>chloralkali</b> 42:24 <b>chlorine</b> 42:22 43:1 44:2 54:2 <b>chosen</b> 43:8 <b>Chris</b> 5:20 10:1 <b>circumstances</b> 40:2 <b>City</b> 22:4 <b>clarification</b> 66:19 98:16 <b>clarify</b> 21:13 51:21 59:3 <b>clarity</b> 31:20 60:9 <b>classified</b> 70:23 71:6,7 <b>Clayton</b> 26:22,23 <b>clear</b> 40:23 <b>Cleaver-brooks</b> 31:5 <b>clock</b> 19:1 <b>closed-circuit</b> 54:11 <b>closed-loop</b> 13:23 <b>coal</b> 16:12 17:2 <b>code</b> 9:23 15:18 71:5 73:19,23 74:8,10 75:3 76:2 78:8,11 79:24 83:22 84:8 85:13 86:12 87:21 88:12,23 <b>code-built</b> 101:5 <b>coded</b> 91:1 <b>codes</b> 18:9 55:24 79:21 87:20 97:21 101:6 <b>Cody</b> 6:20 12:20 <b>Coen</b> 49:17 50:12 <b>cogeneration</b> 43:4 <b>coil</b> 71:14 90:19,20 <b>coils</b> 28:4 69:17 71:14	<b>cold</b> 69:21,22 <b>color</b> 21:7,12 <b>color-oriented</b> 21:24 <b>colored</b> 20:24 21:1 37:12 <b>combined</b> 74:2 <b>Comfort</b> 76:14 <b>command</b> 18:18 <b>comment</b> 59:19,25 60:7 <b>comments</b> 40:13 60:19 <b>commissioner</b> 6:7 <b>commissioning</b> 49:8 60:16 <b>committee</b> 81:22,23 <b>common</b> 69:20,21 <b>commonly</b> 13:23 53:22 <b>communicate</b> 20:19 <b>communication</b> 17:15 18:22 20:14 38:23 <b>companies</b> 59:24 <b>company</b> 4:23 9:17,21 66:23 67:13 72:4 76:23 83:15 <b>complete</b> 32:23 34:10 39:22 40:9 45:17 73:24 <b>completed</b> 10:15 45:15 <b>completely</b> 85:9 <b>completing</b> 60:15 <b>compliance</b> 31:25 85:21,22,23 86:2,3 94:11 <b>comply</b> 88:4 <b>components</b> 51:2 52:5 <b>concern</b> 5:7 <b>concise</b> 92:14 <b>conclude</b> 63:3	<b>condensate</b> 14:1 27:15 <b>condition</b> 21:18 <b>conditions</b> 88:1,4 <b>conference</b> 62:19,21 63:9,11 <b>conflict</b> 12:3 <b>conflicts</b> 12:11 29:25 30:4 41:11,14 <b>confusion</b> 79:6 <b>conjunction</b> 50:12 <b>connected</b> 71:14 84:16 <b>connection</b> 23:10 73:10 79:8 <b>consensus</b> 35:23,24 36:5,11 <b>consideration</b> 36:21 <b>considered</b> 27:9 34:4 <b>consist</b> 69:3 <b>consisted</b> 55:15 <b>consisting</b> 82:4 <b>consists</b> 69:1 <b>consoles</b> 17:23 18:4 <b>constitute</b> 57:13,17 <b>constitutes</b> 56:6 57:13 <b>constitution</b> 57:9 <b>constructed</b> 84:10 <b>construction</b> 60:15 84:9 <b>consultant</b> 6:25 <b>Consulting</b> 6:16 51:19 <b>container</b> 79:9 <b>content</b> 60:8 <b>context</b> 92:13 <b>contingent</b> 29:4 60:23 61:15 <b>continue</b> 5:14 <b>continuing</b> 65:9
--	--	---	---

<b>continuously</b> 23:25	<b>crazy</b> 77:17	<b>Deborah</b> 7:9 62:14,15	<b>designs</b> 27:21
<b>contract</b> 43:13	<b>created</b> 88:12 97:13	<b>December</b> 99:18	<b>desire</b> 98:23
<b>contractor</b> 76:7,11 95:6,13	<b>criteria</b> 61:17	<b>decide</b> 81:24	<b>desired</b> 19:16 45:24
<b>contractors</b> 95:19	<b>critical</b> 45:23 65:20	<b>decided</b> 82:14 88:22 94:10,20	<b>detailed</b> 24:16 44:8
<b>control</b> 6:25 15:6,21 16:2,7 17:1 18:17,19 20:12,15,20 22:17,23 34:20 43:19 47:7,12,14 50:11 72:21 81:5 84:25 85:6	<b>cross-</b> 23:9	<b>decision</b> 72:2,4,6	<b>determine</b> 93:14 98:9
<b>controlled</b> 31:6 81:4,5	<b>Crown</b> 79:16	<b>declared</b> 12:14	<b>device</b> 22:17
<b>controller</b> 15:12 31:7 32:1 38:22 50:22,25 72:18	<b>CSD-1</b> 73:19 74:6 79:18	<b>defer</b> 26:25 28:9 33:1 84:3	<b>devices</b> 58:9
<b>controllers</b> 52:7	<b>current</b> 19:20 60:1,7	<b>define</b> 31:8,12 78:9	<b>diagram</b> 44:23
<b>controlling</b> 47:3,10	<b>customer's</b> 52:12	<b>defines</b> 58:25	<b>difference</b> 79:8
<b>controls</b> 33:5 47:3,9 51:6,7 54:14 58:9 73:17 81:12 85:5	<b>cutoff</b> 24:10	<b>definition</b> 74:18 75:1 78:7 81:25	<b>diligence</b> 99:3
<b>coordinator</b> 6:15 42:9	<b>cutoffs</b> 24:9	<b>definitively</b> 80:6	<b>direct</b> 4:15 98:20
<b>copies</b> 40:7	<hr/> <b>D</b> <hr/>	<b>delinquent</b> 9:19,22	<b>directly</b> 14:2 27:13,16
<b>copy</b> 37:25	<b>DA</b> 23:17,23 24:13 48:10 53:3,8	<b>delivered</b> 85:11	<b>disagrees</b> 72:4
<b>Corp</b> 41:7	<b>Dan</b> 6:8	<b>Deltav</b> 15:6,9 16:2 17:22,23 18:7 19:11 24:1 47:9	<b>disaster</b> 4:13
<b>corporate</b> 46:16 47:15	<b>Daniel's</b> 10:18	<b>demand</b> 31:15	<b>disconnected</b> 16:22
<b>correct</b> 14:15 16:18,23 20:25 22:6 23:1 25:4,15 28:25 34:5,6 47:2,21,22 48:2,15 49:20 50:23 51:23 54:20,23 58:6 59:13 68:23 70:21,22 71:3 72:25 73:4,15,21 74:3,13,25	<b>Danny</b> 7:1 66:11 76:20 77:3 80:17 86:20	<b>demoed</b> 16:20	<b>discuss</b> 12:2,25 13:10 19:6 30:14,16,17,25 40:25 41:1,12,17,18 98:24
<b>corrected</b> 29:7	<b>data</b> 14:8 46:13 52:19, 25 61:1 89:13 90:10 91:4,11,12	<b>demonstrate</b> 45:15	<b>discussed</b> 39:16 55:2 102:16
<b>cost</b> 94:7	<b>database</b> 65:5,9	<b>demonstrated</b> 44:22	<b>discussing</b> 68:25 75:9 83:7
<b>counsel</b> 6:8 36:2 102:10	<b>date</b> 10:10 34:21,22 35:2,3,5,8	<b>department</b> 7:23 62:13	<b>discussion</b> 8:25 11:18 31:18 33:18 57:20 58:8, 12,21 59:5 62:10,12 64:18 69:7 72:1,7,10,13 75:21 80:1,9,13 85:8,12 87:14 92:13 95:17 96:8, 18 102:9 103:4,9
<b>country</b> 67:25 94:21	<b>Dave</b> 6:1,24	<b>departments</b> 17:25	<b>discussions</b> 8:3
<b>county</b> 15:14,15,18 22:7,11	<b>day</b> 35:8 48:20 57:7 63:2 79:24 81:21	<b>depending</b> 54:5 78:4	<b>distracted</b> 55:4
<b>couple</b> 77:5	<b>day-to-day</b> 19:23	<b>deputy</b> 5:20 10:7,8 11:18 63:4 76:20,25	<b>distributed</b> 15:5
<b>Court</b> 5:18	<b>days</b> 31:15 40:1 65:1,2 77:5 93:20 99:11,23	<b>describe</b> 17:13 53:14	<b>diverse</b> 8:1
<b>cover</b> 36:24 37:20,22	<b>DCS</b> 15:5 23:21 24:1 43:19 47:11 53:22 54:15	<b>describing</b> 48:17	<b>divided</b> 54:5
	<b>DCS/RELIEF</b> 43:24	<b>description</b> 15:3 44:4 60:1,8	<b>docket</b> 92:18
	<b>deal</b> 94:8	<b>descriptions</b> 43:25	<b>document</b> 21:11 24:16 32:23,24 34:20,25 35:4, 23,25 36:5,12 37:8,11 60:2
	<b>dealing</b> 83:14	<b>descriptive</b> 60:3	<b>documentation</b> 31:22
	<b>dealt</b> 76:21	<b>design</b> 28:3,7,8 65:14 66:21	
		<b>design-type</b> 68:16	
		<b>designated</b> 15:20	
		<b>designed</b> 45:8,12 89:2 90:12 97:5	

<b>documents</b> 87:20	<b>engaged</b> 20:3	<b>expand</b> 64:2	<b>feet</b> 43:20 56:4
<b>domestic</b> 68:19 73:20	<b>engine</b> 77:11 100:8	<b>expect</b> 45:24	<b>fellowship</b> 64:5
<b>Don</b> 6:9 42:6,10 53:17 59:15 62:5	<b>engineer</b> 6:20 12:21 19:20	<b>expected</b> 17:4	<b>Ferguson</b> 7:5 78:20 95:1 100:9
<b>double</b> 38:17	<b>engineering</b> 6:13 42:5 47:15	<b>experience</b> 44:12 55:19	<b>field</b> 15:25 16:5 49:12 53:14 54:1,9,10 57:6,21 92:7,9 102:5
<b>draft</b> 46:4	<b>engineers</b> 47:16	<b>experiences</b> 64:2	<b>figure</b> 43:18 95:10,18
<b>drain</b> 89:15,16 94:4,24	<b>entail</b> 45:4	<b>explain</b> 26:2 31:21 42:16 96:10	<b>final</b> 29:6
<b>Drive</b> 62:24	<b>Enterprises</b> 7:6 78:20	<b>explained</b> 86:23	<b>find</b> 86:1
<b>Driving</b> 4:8	<b>entire</b> 17:24	<b>explaining</b> 99:25	<b>fine</b> 53:18
<b>drove</b> 86:15	<b>environmental</b> 16:19 17:8,9 20:18	<b>extensive</b> 24:1	<b>fire</b> 84:22,23
<b>due</b> 99:3	<b>equipment</b> 14:1,2 18:2 24:13 27:14,15 33:4,6 45:5,8 46:10,12,21,25 66:21 72:14 78:5	<b>extent</b> 56:3	<b>fired</b> 42:14
<b>Dupont</b> 42:23		<b>external</b> 27:11	<b>Fireeye</b> 31:7
<hr/> <b>E</b> <hr/>		<b>extra</b> 8:6 24:8 43:8	<b>first-class</b> 15:17
<b>earlier</b> 47:8 54:2	<b>essay</b> 44:22	<b>eye</b> 59:12	<b>fixed</b> 27:22 28:1
<b>easier</b> 80:12	<b>essentially</b> 70:7	<b>eyes</b> 22:17	<b>fixing</b> 48:8
<b>easily</b> 21:25	<b>Europe</b> 91:3	<hr/> <b>F</b> <hr/>	<b>floor</b> 68:1,25
<b>easy</b> 21:7	<b>evap</b> 44:2	<b>facility</b> 12:19 17:24 43:4,10 47:16 76:14	<b>flow</b> 24:11 44:23
<b>Ebony</b> 7:11	<b>event</b> 4:12	<b>factory</b> 79:11 89:18 92:20 94:9	<b>follow</b> 37:4 46:17 47:6
<b>ECS</b> 6:16 51:19	<b>everyone's</b> 40:18	<b>fail</b> 77:18 96:4 100:1	<b>follow-up</b> 10:11,17 11:12,13
<b>education</b> 20:4	<b>exact</b> 31:24	<b>fails</b> 76:15 77:2,13 95:24	<b>food</b> 57:18
<b>effort</b> 64:15	<b>exam</b> 45:1	<b>Fairfield</b> 63:7	<b>footer</b> 35:11
<b>efforts</b> 64:8	<b>Excellent</b> 24:12 66:3	<b>fall</b> 24:19 26:18,20	<b>force</b> 24:10
<b>EHS</b> 7:15	<b>exchange</b> 19:6	<b>familiar</b> 19:25 28:7 92:5	<b>forget</b> 59:8
<b>eight-hour</b> 18:25	<b>exchanger</b> 68:16 69:5, 7,23 73:7 77:12 88:11 94:4,24 95:7,24 96:2,3 100:12,15	<b>Fantastic</b> 60:18	<b>format</b> 80:8
<b>elaborate</b> 76:5 96:8	<b>exchangers</b> 68:3 70:9 76:15 81:1,13,17 82:12 89:3,12 90:14 94:13 100:2	<b>fast</b> 63:15	<b>forms</b> 63:14
<b>electricity</b> 43:5	<b>exchanges</b> 19:2	<b>favor</b> 8:12 9:4 13:5 29:8 30:20 41:22 61:24	<b>forum</b> 58:11
<b>electrochemical</b> 43:1	<b>excited</b> 63:16,25	<b>feature</b> 59:11	<b>forward</b> 40:17 60:16 80:5 92:16 102:4
<b>emergency</b> 4:12 16:5 20:23 21:6,8,10,16 45:6	<b>exciting</b> 63:19	<b>feed</b> 23:25 24:2,7,11	<b>found</b> 9:23
<b>emergency-stop</b> 16:3	<b>excuse</b> 66:16,22 68:7 70:1	<b>feeds</b> 23:23 24:2	<b>Frady</b> 7:16
<b>Emerson</b> 47:9 49:13	<b>existing</b> 88:17	<b>feel</b> 5:4	<b>frame</b> 33:5 64:22 83:13 97:20 98:11
<b>employee</b> 46:8	<b>exit</b> 4:15	<b>feels</b> 45:22	<b>France</b> 91:3
<b>enclosure</b> 52:3,4			<b>Freemont</b> 25:11
<b>encountered</b> 91:2,6			<b>freestanding</b> 52:3
<b>end</b> 27:7 79:12			
<b>enforcement</b> 86:5			

<p><b>French</b> 62:24</p> <p><b>frequency</b> 22:16,18</p> <p><b>front</b> 34:18</p> <p><b>fuel</b> 42:17 43:3,7,9,15</p> <p><b>full</b> 62:21 63:19 98:22</p> <p><b>fun</b> 63:19</p> <p><b>functional</b> 59:22</p> <p><b>fundamental</b> 44:15</p> <p><b>fundamentals</b> 44:19</p> <p><b>furthering</b> 92:15</p> <hr/> <p style="text-align: center;"><b>G</b></p> <hr/> <p><b>Galesburg</b> 90:15</p> <p><b>gas</b> 17:3 43:2</p> <p><b>gauges</b> 55:17</p> <p><b>gave</b> 77:8</p> <p><b>general</b> 13:19 65:11</p> <p><b>generally</b> 15:21</p> <p><b>generator</b> 13:24 15:11 23:10 26:17,22 27:9</p> <p><b>gentleman</b> 71:3 86:23</p> <p><b>George</b> 5:18</p> <p><b>German-</b> <b>manufactured</b> 90:22</p> <p><b>Germany</b> 90:20</p> <p><b>give</b> 36:7 37:23 64:9 78:7</p> <p><b>giving</b> 9:17,21 38:7 102:5</p> <p><b>glad</b> 5:2 66:7</p> <p><b>glass</b> 55:17</p> <p><b>good</b> 5:7 8:3 11:21 12:24 16:9 25:20 27:18 29:13 30:6,7,12 31:16 36:10 37:18 39:18 41:2 47:21 50:16,21 52:8 53:2 55:20 58:12 61:10 62:11 67:21 80:10 86:19 87:4 93:22 102:18 103:3</p>	<p><b>governing</b> 74:9,10</p> <p><b>gray</b> 73:5 80:11</p> <p><b>great</b> 29:15 45:2 55:13 56:12 64:1,5 65:18 66:1 92:13 103:4</p> <p><b>greatest</b> 65:16</p> <p><b>groundbreaking</b> 48:21</p> <p><b>group</b> 6:17 8:2 47:15 82:4</p> <p><b>guards</b> 31:13</p> <p><b>guess</b> 13:11 15:14 68:5 75:2 77:4,22 87:2 94:17</p> <p><b>guidance</b> 46:15</p> <p><b>guidelines</b> 46:11,17</p> <p><b>guy</b> 76:18 77:13 86:24</p> <p><b>guys</b> 41:2 84:21 102:8</p> <hr/> <p style="text-align: center;"><b>H</b></p> <hr/> <p><b>H-STAMP</b> 71:2</p> <p><b>handle</b> 16:3</p> <p><b>handled</b> 15:23</p> <p><b>handles</b> 84:9</p> <p><b>hands</b> 33:15 34:3</p> <p><b>hanging</b> 98:4</p> <p><b>happen</b> 19:3 81:8 87:1</p> <p><b>happening</b> 49:14 92:9</p> <p><b>happy</b> 37:23</p> <p><b>hard-coded</b> 35:3</p> <p><b>hard-wired</b> 38:25</p> <p><b>hardwired</b> 20:12,14</p> <p><b>Hargrove</b> 5:24 8:11,22 17:12,20 18:8,12,22 19:19 20:3,8 28:21 30:18 31:19 32:12,17, 22 33:9 34:14 35:16,25 36:17,18 48:16 59:19 60:6 61:22</p> <p><b>Harold</b> 6:3 41:21 87:21</p> <p><b>hate</b> 68:9</p>	<p><b>hazards</b> 45:10 49:23 50:3</p> <p><b>header</b> 23:11 35:11 69:20,21</p> <p><b>hear</b> 32:17 66:1</p> <p><b>heard</b> 47:8 71:8 76:19</p> <p><b>hearing</b> 39:17 60:21</p> <p><b>heat</b> 68:2,16 69:5,6,23 70:9 73:7 76:15 77:12 81:1,13,16 82:11 88:2, 11 89:3,12 90:14 94:4, 12,24 95:7,23 96:2,3 100:2,12,15</p> <p><b>heater</b> 68:13,14,22 69:9,10 74:20 82:3,4</p> <p><b>heaters</b> 82:5</p> <p><b>heating</b> 14:14 15:11 27:6 28:8 87:24</p> <p><b>held</b> 62:22 63:2 100:19 102:23</p> <p><b>helps</b> 41:3 96:17</p> <p><b>henceforth</b> 28:8</p> <p><b>Henry</b> 4:20,22 5:2,10, 11 6:5 13:2 25:22,24 26:13 36:13,14 41:19, 21</p> <p><b>Higgins</b> 7:5 78:15,19</p> <p><b>high</b> 24:3 84:22 91:4</p> <p><b>high-condensate-</b> <b>type</b> 80:20</p> <p><b>high-level</b> 13:12</p> <p><b>high-pressure</b> 13:16, 24 15:10 31:5</p> <p><b>highlighted</b> 21:17,21, 24</p> <p><b>HLW</b> 68:15,22 71:3 91:12</p> <p><b>homework</b> 99:3</p> <p><b>honest</b> 71:6</p> <p><b>Honestly</b> 55:14</p> <p><b>Honeywell</b> 15:12</p> <p><b>hope</b> 57:3 63:20</p>	<p><b>host</b> 63:7</p> <p><b>hot</b> 68:12,14,19,22 69:20 73:20 87:24 102:6</p> <p><b>hotel</b> 63:7,8</p> <p><b>hours</b> 26:11 54:19 56:24</p> <p><b>hundred</b> 56:4 68:6</p> <p><b>hung</b> 100:11</p> <p><b>hydrogen</b> 42:17 43:2</p> <p><b>hydrogenous</b> 43:7</p> <p><b>Hydrotherm</b> 79:15</p> <hr/> <p style="text-align: center;"><b>I</b></p> <hr/> <p><b>idea</b> 72:14 77:23</p> <p><b>identification</b> 51:1</p> <p><b>identified</b> 39:11 41:15 43:18,24 44:3 52:18 53:4</p> <p><b>identify</b> 18:14 35:22 36:20 41:4 49:23 50:2 78:18 80:8,13 99:2</p> <p><b>identifying</b> 45:7 102:20</p> <p><b>idle</b> 16:16 78:11</p> <p><b>Idled</b> 16:22</p> <p><b>ignorance</b> 32:23</p> <p><b>Illinois</b> 90:16</p> <p><b>important</b> 5:4 44:7 45:22</p> <p><b>included</b> 35:15 37:8,15 83:23</p> <p><b>incomplete</b> 34:16 35:25 36:5,7,12</p> <p><b>increased</b> 88:3</p> <p><b>Indeck</b> 49:10 50:11 51:7</p> <p><b>independent</b> 81:17</p> <p><b>independently</b> 72:20</p> <p><b>indicating</b> 25:22 37:17 57:14,17</p>
--	---	---	--

<p><b>individual</b> 12:23 15:20 44:1 46:8 71:1,2,15 72:18 73:1,6 78:23 82:5,16 89:12 90:2,5,10 96:13 100:4,24 101:10, 16</p> <p><b>individually</b> 74:16 82:9 91:5</p> <p><b>individuals</b> 18:9 43:23 44:7</p> <p><b>Industrial</b> 7:12</p> <p><b>industry</b> 64:3,6 98:6</p> <p><b>inform</b> 60:1</p> <p><b>information</b> 20:19 25:17 26:2 34:10 38:6 44:25 65:25 93:17 99:1, 14,20</p> <p><b>initial</b> 45:11 49:3,4</p> <p><b>initiate</b> 18:5</p> <p><b>injunction</b> 86:4</p> <p><b>inlet</b> 69:21,22 81:4 82:8 83:16</p> <p><b>Inn</b> 63:8 76:14</p> <p><b>input</b> 29:19 40:18 58:14 62:9 100:22 102:10 103:4</p> <p><b>inserted</b> 82:3</p> <p><b>inside</b> 68:4 69:2 79:9 81:1 84:25</p> <p><b>inspect</b> 69:8 80:18 81:18 82:16</p> <p><b>inspected</b> 48:12 69:13 76:23 97:24</p> <p><b>inspecting</b> 83:15</p> <p><b>inspection</b> 10:11 29:5 60:24 61:15,16 76:13 94:5</p> <p><b>inspections</b> 9:15,16, 18,20,22 66:20</p> <p><b>inspector</b> 5:21,23 6:23 7:2 9:15 10:7,9 11:19 32:3,4,6 62:19 64:23 66:12 75:11 76:12,21, 25 78:10 80:18 82:14 83:4 86:21 89:10 96:24</p>	<p><b>inspector's</b> 9:13</p> <p><b>inspectors</b> 9:20 62:25 63:4 94:14 98:3 102:11</p> <p><b>install</b> 19:24 78:5 95:20</p> <p><b>installation</b> 19:19</p> <p><b>installations</b> 88:17</p> <p><b>installed</b> 12:23 76:11 82:6 88:2,7,18,19</p> <p><b>installing</b> 43:10 76:6 92:7 95:6,13,19</p> <p><b>installs</b> 69:9 76:22</p> <p><b>instantaneous</b> 68:17, 21</p> <p><b>instructions</b> 36:8</p> <p><b>insurance</b> 9:17,21 78:9</p> <p><b>integral</b> 24:20 47:5</p> <p><b>integrated</b> 31:7</p> <p><b>Intellihot</b> 7:4 66:8,14, 24,25 67:11,23 82:25 89:18</p> <p><b>intended</b> 82:5</p> <p><b>intent</b> 57:4</p> <p><b>intention</b> 66:19</p> <p><b>interest</b> 12:3,11 41:11</p> <p><b>interested</b> 56:8 72:13</p> <p><b>interesting</b> 4:9 75:21</p> <p><b>Interesting.o</b> 75:4</p> <p><b>interlinked</b> 69:17</p> <p><b>internal</b> 34:19</p> <p><b>internally</b> 69:4 70:10</p> <p><b>interpretation</b> 34:15 81:24 97:8,11 98:17</p> <p><b>interpretations</b> 64:22 65:7,10 96:24 97:14 98:2</p> <p><b>interpreting</b> 94:15</p> <p><b>interrupt</b> 68:9 101:3</p> <p><b>intervening</b> 70:21 82:7,13 83:8 84:16 88:8,9,11,13</p>	<p><b>introduce</b> 4:21 12:14 30:5,14 42:2,18 66:10 92:19</p> <p><b>introduction</b> 4:18</p> <p><b>introductions</b> 5:13 8:1</p> <p><b>IQ1501</b> 70:7</p> <p><b>IQ751</b> 76:11</p> <p><b>iron</b> 70:25</p> <p><b>issue</b> 19:8,9 69:24 70:2,3 81:14,15 82:19, 24 93:16 97:25</p> <p><b>issues</b> 15:22 19:6 24:23</p> <p><b>item</b> 12:2 13:1 21:15 29:20 41:6 45:14 62:12 80:1,19 85:10,12 102:19</p> <p><b>itemized</b> 24:13</p> <p><b>items</b> 12:1 19:6 50:25 61:2 62:12 64:17 66:5 93:12 102:16 103:8</p> <hr/> <p style="text-align: center;"><b>J</b></p> <hr/> <p><b>Jack</b> 10:18</p> <p><b>jacket</b> 82:9</p> <p><b>jacketed</b> 82:10</p> <p><b>James</b> 6:12 42:4 54:2</p> <p><b>Jameson</b> 6:18 12:16 19:23</p> <p><b>Jeff</b> 4:22 6:5</p> <p><b>Jefferson</b> 6:6 34:6,9 38:10 40:2 65:21 92:24, 25 97:20 98:21 99:9 102:24 103:1</p> <p><b>job</b> 43:25 44:3 76:10</p> <p><b>job-specific</b> 44:17 45:3</p> <p><b>Johnsonville</b> 6:11 41:8</p> <p><b>July</b> 83:13</p> <p><b>June</b> 11:4,14 17:3,4 25:1,2</p>	<p><b>jurisdiction</b> 15:15 84:11</p> <p><b>Justin</b> 7:3 66:13 67:4,6</p> <hr/> <p style="text-align: center;"><b>K</b></p> <hr/> <p><b>kay</b> 75:5</p> <p><b>keeping</b> 65:5,6</p> <p><b>Keith</b> 5:24 8:22 17:12 28:21</p> <p><b>Kelly</b> 7:5 78:19</p> <p><b>key</b> 48:24 54:4 82:20,22 89:23</p> <p><b>Kim</b> 6:6</p> <p><b>Kimberly</b> 97:20</p> <p><b>kind</b> 13:18,20 18:5 19:9 24:21 47:7 52:15 54:4 55:11,18 65:18 84:19</p> <p><b>Kirby</b> 5:19</p> <p><b>knowledge</b> 64:3 65:11 93:7</p> <p><b>knowledgeable</b> 63:19</p> <p><b>Knoxville</b> 7:2 66:12 67:20 80:18</p> <hr/> <p style="text-align: center;"><b>L</b></p> <hr/> <p><b>Landing</b> 62:24</p> <p><b>late</b> 25:1</p> <p><b>latest</b> 65:16</p> <p><b>law</b> 97:6</p> <p><b>laws</b> 87:8</p> <p><b>layers</b> 46:7</p> <p><b>lead</b> 49:7 53:20</p> <p><b>learned</b> 79:21</p> <p><b>learning</b> 19:24</p> <p><b>leaves</b> 27:25</p> <p><b>leaving</b> 19:4</p> <p><b>left</b> 63:15</p> <p><b>legal</b> 6:8 87:2</p>
--	--	---	--

<b>letter</b> 37:15,21,22 46:4 83:5,6,9,10	<b>long</b> 96:15 101:5,19	<b>manner</b> 98:24	12:16,21 22:4
<b>letters</b> 81:10	<b>longer</b> 10:13 16:25 17:7 26:10 32:10 54:18 57:10	<b>manual</b> 61:16	<b>mention</b> 49:22 59:7 85:8
<b>letting</b> 81:24	<b>looked</b> 74:12,15 80:25 83:19	<b>manufactured</b> 89:13 90:14,18	<b>mentioned</b> 51:20 54:24 56:9 99:12
<b>level</b> 19:16 24:4 27:22 28:1 45:13,19	<b>lose</b> 84:10	<b>manufacturer</b> 42:24 46:20,23 47:6,17 49:10 51:12 82:25	<b>messages</b> 78:4
<b>levels</b> 44:14 46:18	<b>loss</b> 24:11	<b>manufacturer's</b> 52:25	<b>met</b> 86:21,22
<b>liabilities</b> 52:12	<b>lot</b> 43:8 79:22 80:12 95:18	<b>manufacturers</b> 46:20 78:21	<b>Metro</b> 63:8
<b>liaison</b> 7:24	<b>love</b> 49:24	<b>March</b> 8:19,21 9:4,10	<b>Michael</b> 7:7 67:7,8
<b>license</b> 22:6,14	<b>low</b> 24:5	<b>mark</b> 45:16 86:21 97:2	<b>Mike</b> 6:22 76:4,5
<b>licensed</b> 15:16,17,19 23:1	<b>low-pressure</b> 70:25	<b>marked</b> 51:7,14 52:4	<b>million</b> 69:2
<b>limited</b> 72:8	<b>low-water</b> 24:9,10	<b>market</b> 80:20	<b>mind</b> 31:21
<b>line-of-sight</b> 56:3	<b>lowest</b> 84:23	<b>markings</b> 71:2	<b>minimal</b> 94:7
<b>link</b> 65:6,15,24	<b>Lynn</b> 5:19	<b>Martin</b> 71:10	<b>minute</b> 76:20
<b>linked</b> 70:20	<hr/> <b>M</b> <hr/>	<b>Marty</b> 6:16 29:19 51:18	<b>minutes</b> 8:20,21,23 9:3,11 57:10 85:18
<b>list</b> 24:13 50:14	<b>M-O</b> 67:16	<b>master</b> 81:5	<b>missed</b> 37:9
<b>listed</b> 48:4 51:5 55:24, 25	<b>made</b> 4:7 9:3 18:20,21 29:5 32:1 41:20 49:21 70:25 79:10,11 91:3,4	<b>materialized</b> 81:20	<b>missing</b> 38:14
<b>listings</b> 51:3,5	<b>main</b> 47:3 54:3	<b>matter</b> 4:11,17,18 5:13 6:15 42:9 50:7	<b>Missouri</b> 75:8
<b>lists</b> 52:2	<b>maintenance</b> 31:10,11 39:1,6 76:13 77:1 86:24	<b>maximum</b> 85:3	<b>mixed</b> 78:3
<b>live</b> 57:7	<b>make</b> 21:12 31:2 37:11 40:19 43:1,4,5,9,11,15 60:7,22 61:6,14 63:9 65:19 77:24 82:15 87:1 91:13,15 94:20 95:20 101:9,11	<b>means</b> 17:14 84:22	<b>Mo's</b> 7:8 67:10,14,15
<b>LLC</b> 7:15,17 67:17	<b>makes</b> 90:2 96:13	<b>meantime</b> 81:21 83:4 87:18	<b>model</b> 68:2 69:11
<b>local</b> 95:21	<b>making</b> 17:17 26:10 51:2 54:18,21 75:24 79:1 80:2 81:17 91:13 94:18	<b>mechanical</b> 7:8 67:11, 14,17 76:11	<b>modular</b> 66:21 70:20 74:19 75:16 79:2 81:25 82:1,3 84:13
<b>locally</b> 42:23	<b>man</b> 76:13 77:1,5 78:6 89:1	<b>mechanism</b> 38:24	<b>modulars</b> 82:5,7,8
<b>located</b> 16:5 29:21 30:15 43:21 54:13	<b>management</b> 47:4	<b>medium</b> 95:14	<b>module</b> 74:1 101:20
<b>location</b> 43:17 53:25 62:24 63:6	<b>manager</b> 6:10 7:15,17, 22 30:9,11 42:7	<b>meet</b> 73:19 88:4 93:3	<b>modules</b> 69:2,4 101:14
<b>locations</b> 58:25	<b>manages</b> 47:13	<b>meeting</b> 4:4 8:19,21 9:4 11:15 38:11 39:12, 25 63:2 65:23 86:16 92:19 98:14 99:9,18 102:21,23	<b>monitored</b> 31:14
<b>lock</b> 82:20 89:23		<b>meetings</b> 102:4	<b>monitoring</b> 14:3 15:4,7 16:7 17:8 20:18 21:16 23:17 24:2 53:14,15 57:2
<b>locked</b> 19:14		<b>member</b> 4:19 5:25 6:2, 4,5 34:14 60:10 100:5	<b>monitors</b> 54:12
<b>log</b> 18:4,18 38:18,19		<b>members</b> 25:25 61:5 99:1,13	<b>month</b> 48:25 49:1,2,15
<b>log-in</b> 17:25 18:16,20, 21 19:12,13		<b>Memphis</b> 6:19,21	<b>months</b> 83:11
<b>log-ins</b> 18:3			<b>Morelock</b> 103:7
<b>logbook</b> 91:23			<b>morning</b> 4:10 8:2 30:6, 7
<b>logged</b> 18:18			
<b>logging</b> 26:11 54:22			

<p><b>motion</b> 8:8,10,20,22 9:3 12:25 28:15,18,25 29:7,8 30:14,16,17,25 40:22,24 41:12,16,18, 20 60:22 61:6,7,12,14</p> <p><b>mounted</b> 54:13 55:16</p> <p><b>mounting</b> 50:12</p> <p><b>move</b> 8:4 11:24 92:16</p> <p><b>moved</b> 13:2 20:2</p> <p><b>moves</b> 80:5</p> <p><b>Moving</b> 29:20</p> <p><b>multi-stage</b> 24:3</p> <p><b>multiple</b> 68:2 69:24 70:6 71:12,14 72:3 75:17 79:10 84:25 86:6, 9,13 94:14</p> <hr/> <p style="text-align: center;"><b>N</b></p> <hr/> <p><b>Nalco</b> 49:13</p> <p><b>Nashville</b> 4:8 62:23 86:15</p> <p><b>national</b> 48:4 52:19,22 53:7 61:18 69:6 71:13, 15 73:8 74:18 75:11 89:11 91:21,23</p> <p><b>nationally</b> 51:21</p> <p><b>Nationwide</b> 25:10,13</p> <p><b>natural</b> 17:3</p> <p><b>nature</b> 26:3,19 66:18</p> <p><b>Navy</b> 78:25</p> <p><b>NBA</b> 52:17</p> <p><b>NBIC</b> 79:23 80:11 84:9, 12,13 85:23 87:8 97:9 101:24</p> <p><b>neat</b> 52:16</p> <p><b>Nebraska</b> 14:10,11 15:8 23:23 24:24</p> <p><b>necessarily</b> 58:3,11 73:20 84:14 97:5</p> <p><b>needed</b> 44:24 93:18</p> <p><b>NEMA</b> 52:3</p>	<p><b>Neville</b> 6:12 42:4,12 43:16 48:2,5,10,14 50:14,18,20,23 51:4,11 52:6,9,21 53:1,5,7,11 59:3,10 60:3,5,11 62:8</p> <p><b>Newman</b> 86:21</p> <p><b>Nexus</b> 31:7 38:22</p> <p><b>NFPA85</b> 50:9</p> <p><b>nomenclature</b> 50:9 60:25 61:19</p> <p><b>nominal</b> 31:6</p> <p><b>noncompliant</b> 93:15</p> <p><b>note</b> 51:9 91:17</p> <p><b>notice</b> 24:14 48:3</p> <p><b>noticed</b> 20:21 55:5</p> <p><b>number</b> 5:7 9:15,16,19, 23 11:9 12:6 14:17 21:4,15 29:21 48:4,6 52:17,18,19,21,22 53:4, 6,8 59:21 61:17,18 68:5 69:6,11,12 71:15 73:8 75:16 82:2,12 91:16,17, 20,21,22,23 97:14</p> <hr/> <p style="text-align: center;"><b>O</b></p> <hr/> <p><b>O'CONNOR</b> 7:7 67:7, 10,14,16,20 76:5,6 86:14,20 93:23,25 94:1 96:7,14,17 99:22 100:9, 14 102:1</p> <p><b>O'GUIN</b> 5:20 10:1,6,7, 10 11:3,14</p> <p><b>O'Guin's</b> 11:19</p> <p><b>Occidental</b> 6:10,14 41:7 42:7 44:11 46:14</p> <p><b>offering</b> 63:8</p> <p><b>offhand</b> 24:14 59:7</p> <p><b>office</b> 7:2,9 62:16 99:20</p> <p><b>officially</b> 34:23</p> <p><b>oil</b> 12:18 15:25 16:7</p> <p><b>older</b> 65:24</p> <p><b>oncoming</b> 19:5</p>	<p><b>one-on-one</b> 44:20</p> <p><b>onset</b> 21:18</p> <p><b>open</b> 4:4 38:19 39:16 43:22 62:12 64:18 80:1 87:14</p> <p><b>operate</b> 12:8 29:23 31:6 41:9 45:23 46:24 53:18,24 54:6</p> <p><b>operated</b> 26:7 82:6</p> <p><b>operates</b> 52:16</p> <p><b>operating</b> 13:16,19 15:13 18:25 44:2 45:5 88:1</p> <p><b>operation</b> 15:4 47:13, 18 53:19 60:13</p> <p><b>operations</b> 6:10 26:6 42:7 45:6 54:14 59:22</p> <p><b>operator</b> 15:16,19,20 16:1 18:3,16,21 19:12, 17 22:5,12,15 23:2 56:22</p> <p><b>operators</b> 15:18 18:23 19:5,23 20:5 22:5,25 53:23</p> <p><b>opinion</b> 71:9 86:17</p> <p><b>opportunity</b> 26:1 59:20</p> <p><b>opposed</b> 8:14 9:7 13:7 29:11 30:22 41:24 62:2</p> <p><b>order</b> 87:1 93:18</p> <p><b>organization</b> 51:22</p> <p><b>original</b> 32:13,14,19</p> <p><b>originally</b> 94:25</p> <p><b>outlet</b> 69:20 81:3 82:8 83:19 88:7</p> <p><b>outpaced</b> 75:3</p> <p><b>overheat</b> 81:11</p> <p><b>overturned</b> 72:6</p> <p><b>overview</b> 13:12 44:15, 18</p> <p><b>owner/user</b> 98:7</p> <p><b>Owners</b> 75:16</p>	<p><b>Oxychem</b> 41:7</p> <hr/> <p style="text-align: center;"><b>P</b></p> <hr/> <p><b>p.m.</b> 19:3,4 63:5</p> <p><b>package</b> 13:18,21 33:7 35:9,13 39:22 40:6,10</p> <p><b>packaged</b> 68:3</p> <p><b>pages</b> 21:19 37:12</p> <p><b>Paige</b> 7:11</p> <p><b>paper</b> 91:14,15</p> <p><b>paperwork</b> 93:2,8,19 99:6</p> <p><b>paragraph</b> 88:5</p> <p><b>parameters</b> 18:16 24:22</p> <p><b>pardon</b> 32:22</p> <p><b>Parham</b> 6:24</p> <p><b>Parkers</b> 71:13</p> <p><b>Parks</b> 4:15</p> <p><b>part</b> 20:7 24:20 35:10 37:7 49:23 77:18 78:4 100:23,24,25 101:1,7</p> <p><b>party</b> 52:12</p> <p><b>pass</b> 45:1 61:16</p> <p><b>passed</b> 55:14 74:19,20</p> <p><b>passing</b> 20:19</p> <p><b>past</b> 39:25 55:2,11 60:4 79:15,17 91:2,6 99:8</p> <p><b>Paul</b> 7:19</p> <p><b>Paulucce</b> 7:21 30:6,8 31:3,23 35:14,17</p> <p><b>PAULUCCI</b> 32:14,19 34:7,12,21 35:10 38:13 39:8</p> <p><b>pay</b> 95:13</p> <p><b>payment</b> 77:11</p> <p><b>Pearl</b> 102:23 103:1</p> <p><b>pending</b> 28:25</p> <p><b>people</b> 8:2 46:7 53:24 54:6,9 79:21 89:22</p>
---	--	---	--

92:19 95:22 96:10	<b>pipes</b> 88:7	<b>presented</b> 8:23 25:18	<b>protected</b> 71:16 85:1
<b>perceived</b> 95:8	<b>pipng</b> 73:9	<b>presenting</b> 81:23	<b>protocol</b> 4:17 17:13 98:22
<b>percent</b> 22:23	<b>placard</b> 21:24,25 28:25	<b>presently</b> 60:13 74:24	<b>protocols</b> 39:2
<b>Perfect</b> 66:1	<b>place</b> 4:14 38:11 39:4 48:18 56:13 85:5 89:8,9 93:10,20 96:25 99:17	<b>president</b> 7:19	<b>provide</b> 19:20 44:9,21, 24 52:9 93:17 99:19
<b>performance</b> 14:14 15:11 27:5 28:8	<b>places</b> 54:8	<b>pressure</b> 13:19 23:19 24:3 71:17	<b>provided</b> 45:11 88:7
<b>performing</b> 45:6	<b>plan</b> 32:15 43:18	<b>pretty</b> 8:1 65:20 72:8 98:22	<b>provider</b> 76:9 77:9
<b>period</b> 16:20 48:17	<b>plans</b> 17:7	<b>previously</b> 25:7,8	<b>psi</b> 31:6
<b>permit</b> 69:14 70:5,10 72:2 86:7 95:6 96:2,3,4 100:6	<b>plant</b> 7:21 30:9 42:20, 21 43:6,14 53:24 54:5	<b>Primarily</b> 44:18	<b>psig</b> 13:19
<b>permits</b> 16:20 17:9 70:6,7,8 86:6,9,13 96:9 100:1	<b>plants</b> 43:3	<b>primary</b> 15:7 59:1	<b>public</b> 5:6 86:16 87:16
<b>permitted</b> 73:13 74:12 76:24 101:17	<b>plate</b> 89:13	<b>printed</b> 35:2,7,8	<b>publication</b> 83:12
<b>permitting</b> 73:3	<b>pleasure</b> 4:24	<b>prints</b> 35:1	<b>published</b> 65:10 82:1
<b>person</b> 44:21 58:22	<b>plenty</b> 71:11	<b>problem</b> 71:25 82:19 94:9	<b>pull</b> 38:4 54:8 70:5,8 75:15 86:5,9,13 96:2,3, 9 100:5,6
<b>personally</b> 20:6 44:10, 20	<b>plumbed</b> 68:3	<b>procedure</b> 21:6,10,16	<b>pulled</b> 69:14
<b>personnel</b> 4:13 17:15 18:23 31:13 38:21 39:1, 3,5 53:20	<b>point</b> 35:23 36:1,6 38:5 46:21 57:9,20 79:25 92:10 94:16 98:5,6	<b>proceed</b> 36:3	<b>pulling</b> 70:10 100:1
<b>perspective</b> 15:13 19:10	<b>points</b> 19:16 47:14 73:10	<b>process</b> 42:15,16,18 44:8 45:20 46:2 47:9,16 49:7 50:7	<b>pumps</b> 24:3,5 45:6
<b>pertaining</b> 81:10 87:24	<b>portion</b> 47:12 69:21	<b>process-specific</b> 44:16,19	<b>purchase</b> 95:1,5
<b>pertinent</b> 101:21	<b>possibly</b> 38:11 97:5	<b>processes</b> 54:12	<b>purchased</b> 25:13
<b>Peter</b> 76:20	<b>post</b> 65:16	<b>produce</b> 35:4	<b>purpose</b> 54:3 77:11
<b>Peters</b> 7:1 66:6,7,10,11 80:16,17 83:25 87:12, 13,23 88:19,22,25 89:9, 20 90:3,6,8,11 91:10, 11,19 92:2 94:2 97:17, 18 98:20	<b>Post-construction</b> 84:11	<b>produces</b> 42:16	<b>put</b> 22:16 24:8 35:9 37:6 50:11 79:16 81:16 82:15,20 83:1 89:8,14, 15,23 91:15 96:25 101:11
<b>phase</b> 49:3,9	<b>potable</b> 68:19	<b>product</b> 67:24 76:7 77:9	<b>puts</b> 47:18
<b>phones</b> 57:8	<b>potential</b> 19:6	<b>proficiently</b> 45:15	<b>putting</b> 49:4 78:24 89:13 94:17
<b>PHS</b> 30:11	<b>power</b> 17:1 42:14	<b>program</b> 44:14 46:16 47:19 49:6	<hr/> <b>Q</b> <hr/>
<b>physical</b> 11:1 22:17 26:10 59:12	<b>precedents</b> 75:7	<b>project</b> 12:21	<b>QA</b> 35:7
<b>physically</b> 22:22	<b>predesigned</b> 45:21	<b>projects</b> 20:2	<b>qualification</b> 46:3,4
<b>piece</b> 13:25 14:1 27:14, 15 46:9,12,24 47:13 66:21	<b>predominantly</b> 17:22	<b>proper</b> 25:17 51:3 60:25 61:15 80:8 93:10, 21	<b>qualified</b> 44:1
	<b>prepare</b> 93:4 99:15	<b>proposal</b> 16:11 20:25 21:6 36:25 37:15 41:17	<b>qualify</b> 44:6 46:2
	<b>prepared</b> 37:10	<b>proposed</b> 60:23	<b>qualifying</b> 7:8 45:20 46:5,7
	<b>prepiped</b> 68:3	<b>proposition</b> 4:9	<b>quality</b> 23:19 28:5
	<b>present</b> 42:11 62:17 81:21 83:10,22 84:3 87:19 98:15,16		
	<b>presentation</b> 29:17 31:2 80:2 85:8		

<b>quality-type</b> 19:8	<b>red</b> 21:25	<b>REPORTER</b> 5:17	<b>revised</b> 31:20 32:24 34:8,18 65:8
<b>quantities</b> 91:4	<b>redesign</b> 89:17	<b>Reporting</b> 5:18	<b>revision</b> 33:8,15 34:4, 21 35:1,6 74:22 98:12
<b>quarter</b> 10:15	<b>refer</b> 13:23 15:10 26:18 36:2 39:13,14 79:23 99:4	<b>reports</b> 10:21 91:4	<b>Reynolds</b> 7:14 30:10 34:19,22,25 37:5,17,20 38:1 40:5,11
<b>question</b> 10:22 14:5 16:10 20:11 26:25 28:10 35:22 55:13 56:12 57:3 69:15 70:14 75:23 77:3,10,25 78:2,9 79:17 85:16 87:4,5 95:4 100:17	<b>reference</b> 101:9,23	<b>representative</b> 62:13	<b>RF2</b> 27:23
<b>questions</b> 10:20 11:18 19:24 23:6 25:21 28:9, 12 29:19 31:18 38:17 39:9,11,19 40:13 45:21, 24 53:12 57:21 59:18 60:19 63:22 85:14 95:22 96:25 99:2	<b>referenced</b> 17:4,6 21:10,22	<b>representatives</b> 12:6	<b>Rhone</b> 7:9 62:15 63:22 64:12,14 65:12
<b>quick</b> 41:16 71:20 88:16	<b>references</b> 21:19 38:4	<b>request</b> 13:10 28:16 30:14 33:19 39:21 42:13 60:23 61:13	<b>ridiculous</b> 98:5,7,8
<b>quickly</b> 21:17,22	<b>referred</b> 53:22	<b>requested</b> 26:4	<b>rights</b> 17:25 18:15 19:14
<hr/> <b>R</b> <hr/>	<b>referring</b> 56:25 57:25	<b>requesting</b> 12:7 13:17 29:22 41:8	<b>risk</b> 6:24
<b>rack</b> 78:22,24 79:9	<b>refinery</b> 12:18 15:25 16:7	<b>require</b> 10:11,13	<b>Rob</b> 75:9
<b>rail</b> 22:21	<b>register</b> 76:2 82:17	<b>required</b> 23:2 26:20 37:12 70:5 88:6	<b>role</b> 19:20
<b>rate</b> 63:9 72:24 79:18	<b>registered</b> 14:18	<b>requirement</b> 35:20 93:3,9	<b>roles</b> 31:9
<b>rated</b> 72:23	<b>registration</b> 63:12,14	<b>requirements</b> 12:8 29:22,23 41:10 73:24 74:8 91:9	<b>rolled</b> 80:23
<b>Rawls</b> 7:12	<b>regulate</b> 81:9	<b>requires</b> 15:15	<b>room</b> 16:2,8 39:4 43:19,22 58:8 102:23 103:2
<b>reaction</b> 43:1	<b>relate</b> 73:24 74:11	<b>resource</b> 39:19	<b>Rosa</b> 4:15
<b>read</b> 81:9 82:2 95:9	<b>related</b> 52:4 79:18	<b>respond</b> 39:3 54:9	<b>rotate</b> 54:4,7
<b>reading</b> 52:2 94:14	<b>relevant</b> 60:8	<b>response</b> 8:13,15 9:1, 6,8 11:20 12:12 13:6,8 23:7 28:13 29:9,12 30:2,21,23 40:14 41:13, 23,25 60:20 61:25 62:3 63:23 102:14,17	<b>roughly</b> 69:12
<b>ready</b> 39:9	<b>relief</b> 71:17 74:14 85:1, 2	<b>responsibilities</b> 54:4	<b>rule</b> 26:7,20 29:24 41:10 42:13 57:4,25 58:20 85:17,18,22 95:10 98:13
<b>real</b> 63:16 71:19 88:16	<b>relieve</b> 85:3	<b>responsible</b> 31:10	<b>rules</b> 4:4,20 57:22 58:21,24 63:2 85:23 87:6,11 102:20
<b>realized</b> 82:18 83:1	<b>rely</b> 55:21	<b>restarts</b> 15:22	<b>ruling</b> 97:7
<b>reason</b> 15:24 82:22 86:15,25 93:9	<b>remember</b> 31:24	<b>restriction</b> 22:14	<b>rulings</b> 97:21
<b>receive</b> 62:18	<b>remote</b> 15:13,20 16:6 21:16,23 22:1 31:12 43:16,19,23 53:14,23 56:14 59:11	<b>restrictions</b> 22:9,11	<b>run</b> 18:25 24:4 25:5 72:19
<b>recently</b> 65:25	<b>removed</b> 17:10	<b>resubmit</b> 32:8 38:8 39:24	<b>running</b> 19:17 23:3,25 65:9 102:5
<b>recognized</b> 51:22	<b>renewed</b> 16:19	<b>resubmittal</b> 32:11	<b>runs</b> 31:15
<b>recommend</b> 98:10	<b>rental</b> 25:9	<b>resubmitting</b> 40:20	<b>Ryantton</b> 6:22
<b>recommends</b> 46:24	<b>replace</b> 76:16 77:2,12, 15,19 95:24 96:4 100:3, 15,16 101:12	<b>results</b> 45:25	<hr/> <b>S</b> <hr/>
<b>record</b> 31:22 34:23 40:19 87:17	<b>replaceable</b> 100:18	<b>returns</b> 27:16	<b>S-STAMPED</b> 47:25
	<b>replaced</b> 101:4,22	<b>reversed</b> 72:6	
	<b>replacing</b> 101:20	<b>review</b> 26:1 28:10 38:3	
	<b>report</b> 9:13,25 10:3,5,9 11:19,22 52:20,25 90:10 91:11,12		

<b>S-VALVES</b> 88:9	<b>secure</b> 83:2	<b>shop</b> 90:12 91:13,24	<b>smart</b> 89:1
<b>safe</b> 4:14	<b>security</b> 4:13 17:13 31:13 39:1,3,5	<b>show</b> 44:24 78:8	<b>soda</b> 42:22 43:2
<b>safely</b> 4:7	<b>sees</b> 54:15,16	<b>Shreiner</b> 7:3 66:13,16, 24 67:1,4,23 68:8,11, 14,18,23 69:16,19 70:4, 22 72:19 73:1,4,15,22 74:3,5,13,17,25 75:6 76:3 78:3 80:15 86:4,10 90:15,19 92:17,22 99:6 100:18	<b>Sofix</b> 7:14,17,20,22 29:21 30:9,15 34:25 35:1,5
<b>safety</b> 5:5,7 39:3 47:4 58:9 59:11 62:19,22 63:10 64:4 81:2,6,14,16 82:19,24 83:18 85:1 87:25 88:10 89:14 94:3, 23 97:25	<b>sell</b> 78:5	<b>shut</b> 24:5,10 69:23 81:12 82:23 89:24	<b>sold</b> 67:23 79:6,7
<b>sale</b> 92:6	<b>selling</b> 78:22 80:21	<b>shut-down</b> 17:18	<b>sort</b> 98:12
<b>salt</b> 42:25	<b>send</b> 46:2	<b>shutting</b> 24:7	<b>sorts</b> 85:9
<b>Sam</b> 5:22 65:22 78:6,10 93:17 95:4	<b>sends</b> 100:10	<b>side</b> 4:16 27:15,16	<b>space</b> 43:22 79:4
<b>Sam's</b> 93:13,16	<b>senior</b> 6:24	<b>sight</b> 56:4,6,20 57:12	<b>speak</b> 92:20 99:24
<b>sat</b> 89:10	<b>sense</b> 24:19	<b>silence</b> 18:6	<b>speaking</b> 95:11
<b>satisfactory</b> 57:1	<b>separate</b> 15:9 18:10,11 23:14 27:6,10 28:4 47:12 74:1 78:1 79:16, 19	<b>similar</b> 47:8 84:7	<b>special</b> 50:11 62:25 63:4
<b>save</b> 91:14	<b>separately</b> 72:24	<b>simple</b> 77:15 97:11	<b>specialty</b> 13:20
<b>schedule</b> 63:25	<b>separator</b> 27:10	<b>single</b> 31:4 68:4 69:10, 11 70:5,10 73:10 75:15 82:8 84:17 86:6	<b>specific</b> 46:12 47:3 57:12,22
<b>scheduled</b> 99:9 102:21	<b>September</b> 38:10 39:25 40:21 62:22 63:1, 4 87:19 92:18 93:11 98:14 99:10 102:22	<b>sir</b> 25:23 26:16 29:3 33:9 37:1 38:1 40:11 51:16,24 55:7 62:6 64:19 66:7 67:3 68:8, 11,15 69:16 78:14 84:5 93:24 96:20	<b>specifically</b> 51:20 54:13 58:1,22 66:20 68:1 84:14
<b>Schoenfelder</b> 6:18 12:15,16 13:11,15 14:7, 11,15,19,21,24 15:2 16:13,16,18,23,25 17:16,21 18:11,13,24 20:13,17 21:9 22:3,7,13 23:1,12,15,18,22 24:15, 25 25:4,8,19 27:12 29:15	<b>September's</b> 93:5	<b>SIS</b> 15:10	<b>specifications</b> 24:16
<b>screen</b> 54:16	<b>sequence</b> 17:19	<b>sit</b> 86:15	<b>spell</b> 97:3
<b>screws</b> 100:20	<b>serial</b> 69:11 91:16,22	<b>site</b> 17:15 20:15 22:20 43:18 49:11 55:17	<b>spend</b> 77:17
<b>Sean</b> 7:14 30:10,13 31:2	<b>service</b> 5:3 7:17 17:7 25:9 76:8 77:9 92:11	<b>sits</b> 75:11	<b>spoke</b> 77:7
<b>second-hand</b> 25:17	<b>serving</b> 5:9	<b>sitting</b> 4:19 77:19 86:25 103:6	<b>spoken</b> 86:18
<b>secondary</b> 55:21	<b>set</b> 19:16 46:10,11 75:7 87:7,11	<b>situation</b> 92:25 97:22	<b>Sr</b> 67:7
<b>seconded</b> 41:21	<b>shape</b> 45:2	<b>situations</b> 16:3	<b>staffed</b> 19:1
<b>secretary</b> 5:19	<b>share</b> 69:19,20	<b>sizes</b> 68:24	<b>staffing</b> 15:17
<b>section</b> 21:17,21 27:7, 10 28:4 68:15 71:1,5 75:12 82:2 83:12 100:25 101:5,6,12,13, 20	<b>sheet</b> 14:8 20:23 21:2,6 61:1	<b>skin</b> 82:11,20 83:2	<b>stages</b> 47:10
<b>sectional</b> 101:10	<b>sheets</b> 91:15	<b>slightly</b> 18:15	<b>Stamatia</b> 7:23
<b>sections</b> 101:11	<b>Shelby</b> 15:14,18 22:7, 11	<b>slots</b> 63:13,15	<b>stamp</b> 68:20 71:4 73:6 90:5,24,25
	<b>shift</b> 19:2,4,5 53:21	<b>smallest</b> 68:25	<b>stamped</b> 90:23 101:7, 16
	<b>shifts</b> 19:1 53:19		<b>standard</b> 13:18 18:16, 25 27:23
	<b>ship</b> 95:2		<b>standardly</b> 19:3
	<b>shipping</b> 94:21		<b>standpoint</b> 5:5 64:4 72:12,23 74:16
	<b>shoes</b> 96:11		<b>start</b> 5:13,15 17:5 18:5 76:17

<b>start-up</b> 17:19 20:2 76:9 77:8	<b>submitted</b> 14:9 32:24 33:20 34:2 37:13 93:2,8 99:7	<b>table</b> 5:14 40:23 63:14	13,15 81:8 83:3 94:11, 18
<b>started</b> 17:6 25:1 42:21 48:20,25 80:21 83:14	<b>submitting</b> 36:25	<b>tabs</b> 37:11	<b>thankful</b> 4:6,9 5:9 103:5
<b>starting</b> 45:5 46:21 60:16	<b>subsection</b> 71:4	<b>tag</b> 76:24 94:6 100:11	<b>that'll</b> 49:6
<b>state</b> 5:3,5 6:22 7:2 9:15,20 14:18 22:10 29:5 32:5 37:15 48:13 55:15 60:24 64:10 65:14 66:11 67:24 68:5 69:13 76:1 78:4,10,24 81:9,19 82:17 85:23 87:8 88:17 94:11 95:6 96:9	<b>subtract</b> 91:16	<b>tags</b> 98:4	<b>thing</b> 5:7 8:4 29:1 38:13 40:8 56:7 65:21 77:15 80:23 92:5,23 93:23
<b>stated</b> 22:5 76:13,25	<b>successfully</b> 46:1	<b>takes</b> 39:4 48:18	<b>things</b> 19:14 45:7 55:17 63:17 80:12 84:2 87:1 89:24 91:1,2 97:24
<b>states</b> 69:24 75:8,18	<b>sufficient</b> 55:19 85:7 99:19	<b>talk</b> 39:21 56:19 65:22 77:23 84:14	<b>thinking</b> 71:20
<b>station</b> 21:16,23 22:1 31:14 43:17,19,23 53:23 59:11	<b>suggest</b> 65:22 99:17	<b>talked</b> 14:9 16:11 32:3 55:10 56:2,10 77:4 86:20 95:5	<b>thought</b> 50:7 57:19
<b>stations</b> 16:7	<b>suggestion</b> 96:22	<b>talking</b> 46:19 48:22 56:21 86:24 94:2 96:23	<b>thoughts</b> 77:8,16 99:4
<b>steam</b> 13:24,25 15:11 23:10,11 26:17,21 27:6, 8,10,13,24 28:4,6 43:4, 5,9,11,12,15 62:21	<b>Super</b> 39:10 52:11	<b>talks</b> 84:15	<b>Thursday</b> 63:3
<b>Stone</b> 5:17	<b>supervisor</b> 6:19 7:10 12:19 18:3,14,20 19:13, 18 45:21 46:2 53:21 62:16	<b>tankless</b> 78:23	<b>tie-ins</b> 23:14
<b>stop</b> 18:6 81:2,7 82:7, 13,15,24 83:8,17 94:3, 18,22,23 95:3,7,9 97:25	<b>supplemental</b> 83:5,6	<b>teach</b> 87:2	<b>tied</b> 23:21 38:22 72:16 73:8
<b>stopping</b> 45:6 86:5	<b>supplied</b> 91:5,8 92:6	<b>team</b> 64:15	<b>time</b> 16:21 22:23 32:2, 15 33:5 34:5 35:21 36:1,9 38:5 57:20 64:1, 5,22 65:8,16 66:17 80:10 82:18 83:10,13 92:6,13 94:16 97:20 98:11 99:2,14,19 103:6
<b>stops</b> 16:5 95:14 100:11	<b>supplies</b> 13:25	<b>tear</b> 24:8 76:15	<b>timeframe</b> 16:21
<b>straight</b> 83:17	<b>supply</b> 42:21 95:2	<b>tech</b> 39:1,6	<b>timeline</b> 17:5 32:25 48:16
<b>strategy</b> 47:18	<b>support</b> 64:10	<b>technical</b> 7:16 72:12 84:21	<b>timely</b> 98:24
<b>streaming</b> 57:8	<b>supporting</b> 19:23 64:10	<b>technically</b> 54:9	<b>times</b> 95:14
<b>structured</b> 46:18	<b>supported</b> 20:23,24 21:5 91:8 92:8 95:23 97:24	<b>technician</b> 31:10 44:3 53:20	<b>today</b> 4:7 42:12 66:8 98:10 99:7
<b>subject</b> 6:15 42:9	<b>surface</b> 88:2	<b>technicians</b> 43:24 54:1	<b>told</b> 86:16 87:15
<b>submission</b> 32:13,15	<b>system</b> 13:22,23 15:4, 5,6,7,9,10,12,21 17:14, 16,17 18:7,17,19 19:11, 21,25 22:18,23 23:11, 21,25 24:1,20 31:13 34:23 35:6,7,11 47:4,7 50:8,11,15 51:2 52:14, 15 60:1,7 72:18 73:9 76:16 77:12 78:23 79:7 83:2	<b>technology</b> 75:2 80:20	<b>top</b> 35:1,5 37:22
<b>submit</b> 31:4 32:2 36:8, 25 40:6 80:8 93:19 99:19	<b>systems</b> 17:1 20:15 38:23,24 76:17 79:2,9	<b>templates</b> 35:4	<b>total</b> 9:17,19,22 11:9 68:4
<b>submittal</b> 14:16 20:22 31:20 34:15 64:21,24		<b>ten</b> 11:10 40:7 84:23 85:6	<b>totally</b> 23:14
<b>submittals</b> 59:21		<b>ten-to-one</b> 84:20	<b>Toth</b> 6:16 26:16,17,23, 25 27:19,20 51:15,17, 18,19,25 55:2,3,7,13,25 56:11,16,19 57:15,24 58:3,7,14 64:19,20 65:2,4,18 66:1,4 70:14, 16,19,23 84:4,6 87:13
	<b>T</b>	<b>Tennessee</b> 4:24 5:5 6:11 7:1,18 12:17 14:17 22:10 37:15 41:8 48:6, 13 52:18,21 53:4,8 55:15 60:24 61:17 62:19 67:20,24 68:5 69:13 75:14 76:2 79:3 87:20 88:17 96:10 100:5	
	<b>T118123</b> 53:9	<b>test</b> 45:1 73:6	
	<b>tab</b> 21:2,7	<b>testing</b> 51:22	
		<b>Texas</b> 69:25 75:7,11,	

90:24 96:21,22 97:13, 19 100:22,23 101:4	<b>uncorrected</b> 9:24	84:16 88:6,8,11,13,18, 19 89:3,4,6,8,25 90:2 94:3,18,22,23 95:3,4 96:13,16 97:25 101:15	<hr/> <b>W</b> <hr/>
<b>tough</b> 80:11	<b>understand</b> 72:10 75:13 77:22 86:14 87:13 96:14 97:18 98:23 101:15 102:1	<b>valving</b> 72:17	<b>wait</b> 99:23
<b>traceability</b> 92:2	<b>understanding</b> 32:12 60:9	<b>variance</b> 9:25 10:5,14, 16 12:7 13:17 21:15 22:10 24:19 26:3,8,9 28:16 29:14,22 30:15 31:4,8,24 32:9,20 33:19 34:2,7,8,13 35:13 36:22 38:7 41:9 42:13 55:14 56:25 58:4,16 59:21 60:23 62:5 69:24 70:2,4 75:9,25 76:1 77:22 85:17,19,20 86:1 87:10 98:13	<b>wall</b> 78:23
<b>traffic</b> 4:8	<b>unique</b> 52:15 63:17	<b>variances</b> 10:11,19 11:1,5,7,11	<b>wall-hung</b> 79:5
<b>trained</b> 45:3 54:6	<b>unit</b> 45:23 49:17 60:12 69:1,2,14 70:24 71:7,9, 16 72:23,24 73:3,14,18, 21,25 74:2,11,12,16 76:24 77:18 78:1 79:7, 20 82:6,16 83:8,16 84:17 85:4 89:13,21 90:22 91:5,19,20 95:14 96:16 98:3 99:15 100:5, 6,13,16 101:16,17	<b>verbiage</b> 50:6 74:19 75:3,14	<b>wanted</b> 55:11 59:6 62:17 82:14 87:16
<b>training</b> 6:17 20:4 38:18,20,21 39:5 44:6, 10,13,16,17 45:4,11,13, 14 46:10,11,15 47:19, 20,21 48:17 49:4,12,14, 22,23 62:25 63:20	<b>unit's</b> 72:2	<b>verbal</b> 8:15 9:1,8 11:20 12:12 13:8 23:7 28:13 29:12 30:2,23 40:14 41:13,25 60:20 62:3 63:23 102:14,17	<b>wanting</b> 76:18 92:14
<b>Travelers</b> 6:25	<b>units</b> 27:21 28:3 47:4 71:12 72:16 75:16 76:12 77:25 78:1,23 79:5,6,10,19 84:7,13, 15,25 88:14 96:13 98:1 100:10 102:5	<b>verbiage</b> 50:6 74:19 75:3,14	<b>watch</b> 100:7
<b>treat</b> 83:7 100:12	<b>unloading</b> 22:21	<b>verification</b> 31:12	<b>watching</b> 22:22
<b>treated</b> 100:24	<b>update</b> 21:11 48:5 65:12	<b>verified</b> 10:12	<b>water</b> 13:22 14:3 19:8, 16 23:19,25 24:3,7 27:7,16,22 28:1 68:13, 14,19,22 69:9,10 73:20 74:20 82:3,4 85:2 87:24 90:20 102:6
<b>trinkets</b> 94:12	<b>updated</b> 61:19 65:23, 25	<b>versus</b> 18:16 19:12,13 32:24 79:7,9 86:6	<b>water-tube</b> 13:18,21 27:23 68:16
<b>trips</b> 24:6	<b>updating</b> 61:16	<b>vessel</b> 29:23 30:15 41:9 81:10,17	<b>wear</b> 24:8
<b>Troutt</b> 75:10 81:8,22 83:3	<b>upgrade</b> 52:23	<b>vessels</b> 12:8 70:19 80:19 83:15 89:4	<b>web</b> 65:14
<b>truck</b> 80:23	<b>users</b> 79:12	<b>Vi-jon</b> 10:17	<b>web-based</b> 38:25
<b>true</b> 77:3	<b>utilities</b> 12:18 54:3	<b>vicinity</b> 56:20,23	<b>website</b> 65:13,17
<b>tube</b> 90:20	<b>utility</b> 6:19	<b>violation</b> 97:2	<b>websites</b> 65:23
<b>turn</b> 72:8 94:13	<b>utilize</b> 43:7 76:8	<b>violations</b> 9:23	<b>Wednesday</b> 63:1 102:21
<b>turn-down</b> 84:21	<b>utilizing</b> 55:9	<b>visit</b> 10:17	<b>week</b> 31:15 49:9 60:15
<b>turned</b> 21:17	<hr/> <b>V</b> <hr/>	<b>voice</b> 86:17	<b>weeks</b> 60:17
<b>TVA</b> 43:12	<b>valve</b> 72:21 81:3,6,7 82:24 83:18 85:1,2 88:3,10 89:14 94:23	<b>vote</b> 29:8 34:4 38:7 61:24 80:2,7,10	<b>whatnot</b> 49:5
<b>type</b> 27:21 39:5 59:23	<b>valves</b> 69:22 70:21 71:17 74:15 81:2,16 82:7,13,15 83:8,17		<b>whatsoever</b> 23:14
<b>types</b> 38:21			<b>white</b> 80:12
<b>typical</b> 40:1			<b>Whitley</b> 6:14 42:8 44:9 46:14 47:1 48:19 49:1, 18 50:1,4 62:7
<b>typically</b> 21:23 91:3			<b>Wilsdorf</b> 6:9 42:6,15, 19 46:19 47:2,22 48:1, 15,22 49:2,19 53:6,13, 18 54:20,23 59:2,13,16 60:14 62:6
<hr/> <b>U</b> <hr/>			<b>window</b> 99:8
<b>uh-huh</b> 14:12 48:1 51:14 53:1 57:15			<b>wireless</b> 20:12,14,17
<b>UL</b> 50:10 51:3,5,20,22 74:10			<b>wirelessly</b> 20:20
<b>UL-LISTED</b> 50:15 51:7, 14 52:3,7,13			
<b>ultimately</b> 72:1			

**wondering** 65:8

**wording** 49:24

**words** 57:24

**work** 5:8 10:4 12:16  
20:1 40:3 44:18 49:11  
53:19 93:13,16 102:6

**working** 19:9 65:15,25  
72:15 74:18,24 103:5

**WRC** 7:11

**written** 44:22 45:1

**wrong** 20:22

**wrote** 50:6 57:12 83:5

---

**X**

---

**Xixis** 7:23

---

**Y**

---

**y'all** 100:7

**year** 11:1,6 12:22 25:3  
31:24 32:4 64:1

**years** 12:17 32:10,13  
44:11 55:2,11 58:10  
68:1 69:12 70:12 80:22  
84:8 97:14

**yellow** 21:25

**you-all** 29:18 93:18  
99:19

**you-all's** 93:5